28-29

Kansas Administrative Regulations
Kansas Department of Health and Environment

Notice to Reader

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Where possible KDHE will append changed regulations to the appropriate article. Once again, the lack of any attachments should not be construed as meaning there are no revisions.

Nothing contained herein should be construed as legal advice by KDHE. If you are not an attorney, you should secure competent counsel to interpret the regulations and advise you.

Office of Public Information
Kansas Department of Health and Environment
February 2, 2000

Notes

The *Kansas Register* notes the following changes:

28-29-28	Amended	V. 16, p. 1427
28-29-28a	New	V. 16, p. 1427
28-29-29	Amended	V. 16, p. 1427
28-29-29a	New	V. 16, p. 1428
28-29-30	Amended	V. 16, p. 1428
28-29-31	Amended	V. 16, p. 1429
28-29-32	Amended	V. 16, p. 1431
28-29-33	Amended	V. 16, p. 1431
28-29-34 thru -36	Amended	V. 19, p. 1432
28-29-12	Amended	V. 17, p. 1026
28-29-27	Amended	V. 17, p. 1026

29-29-108	Amended	V. 17, p. 1027
29-29-109	New	V. 17, p. 1031
28-29-98	Amended	V. 17, p. 1087
28-29-25d	New	V. 17, p. 1931
28-29-27	Amended	V. 17, p. 1026
28-29-26	Revoked	V. 17, p. 673
28-29-17a	Revoked	V. 18, p. 1948
28-29-17b	Revoked	V. 18, p. 1948
28-29-98	Revoked	V. 18, p. 1948
28-29-2101 thru -2113	New	V. 18, p. 1948
28-29-1100 thru -1107	New	V. 19, p. 941

Article 29.-Solid Waste Management

Part 1. Administrative Procedures

28-29-1.Revoked.(Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended May 1, 1982; revoked May 10, 1996.)

28-29-2. Variances.

(a) General procedure. If exceptional circumstances make strict conformity with these regulations impractical or not feasible, a person may submit a written request for a variance from these regulations. The department may grant a variance from these regulations and stipulate conditions and time limitations as necessary to comply with the intent of all applicable state and federal laws. The department shall review the variance request and notify the person within ninety (90) days of receipt that the application is approved, denied, or requires modification.

(b) Experimental operations. Variances may be granted to facilitate experimental operations intended to develop new methods or technology. Variances for experimental operations shall be considered only where significant health, safety, environmental hazards, or nuisances will not be created, and when a detailed proposal is submitted and accepted which sets forth the objectives, procedures, controls, monitoring, reporting, time frame, and other data regarding the experiment.

(c) Restrictions. Variances for experimental operations shall be limited to a maximum of two (2) years; however, the department may renew the variance for one or more additional two-year periods upon a showing by the person that the need for a variance continues to be valid. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-3. Definitions.

(a) "Agricultural waste" means solid waste resulting from the production of farm or agricultural products.

(b) "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as is, or tends significantly to be injurious to human health or welfare, animal or plant life, or property, or would unreasonably interfere with the enjoyment of life or property.

(c) "Backyard composting" means a composting operation that does not distribute the finished compost for use off-site and that meets one of the following conditions:

(1) The materials are all compostable and are generated by no more than four single residences, or the equivalent of four single residences.

(2) The material being composted consists entirely of yard waste, and the volume of material being composted is less than 10 cubic yards.

(d) "Bulky waste" means items of refuse too large to be placed in refuse storage containers, including appliances, furniture, tires, large auto parts, motor vehicles, trees, branches, or stumps.

(e) "By-product" means a material produced without separate commercial intent during the manufacture or processing of other materials or mixtures.

(f) "Commercial waste" means all solid waste emanating from establishments engaged in business including solid waste originating in stores, markets, office buildings, restaurants, shopping centers, and theaters.

(g) "Composting" means a controlled process of microbial degradation of organic material into a stable, nuisance-free, humus-like product.

(h) "Composting area" means the area used for receiving, processing, curing, and storing compostable materials and compost.

(i) "Discarded material" means one of the following: (1) Material that has been abandoned or

disposed; or

(2) a by-product or residual, when it is either in treatment or in storage or when it is used in a manner that constitutes disposal.

(j) "Disease vector" means rodents, flies, mosquitos, or other pests capable of transmitting disease to humans.

(k) "Garbage" means the animal and vegetable waste resulting from the handling, processing, storage, packaging, preparation, sale, cooking, or serving of meat, produce, or other foods and shall include unclean containers.

(l) " Groundwater" means that part of subsurface water in the ground that is in the zone of saturation.

(m) "Incineration" means the controlled process of burning solid, liquid, and gaseous combustible wastes for volume and weight reduction in facilities designed for that use.

(n) "Incinerator" means any device or structure used for the destruction or volume reduction of garbage, rubbish, or other liquid or solid waste materials by combustion pursuant to disposal or salvaging operations.

(o) "Leachate" means liquid that has been or is in direct contact with solid waste.

(p) "Longterm care" means the maintenance of all appurtenances and systems installed or used in the containment of solid wastes and the maintenance of the effective performance of leachate or gas collection, treatment, and disposal systems installed for use during the postclosure care period at a solid waste disposal area or a solid waste processing facility.

(q) "Mixed refuse" means a mixture of solid wastes contining both putrescible and nonputrescible materials.

(r) "Monofill" means a landfill in which 90% or more of the waste disposed is restricted to one specified waste.

(1) All other waste disposed of in a monofill shall meet both of the following requirements:

(A) The waste shall be associated with the process that produced the specified waste.

(B) The waste shall have characteristics similar to those of the specified waste and shall have similar and limited potential hazards to human health and the environment.

(2) Clean rubble, as defined in K.S.A. 65-3402 and amendments thereto, may be disposed of in any monofill and shall not be considered in calculating the percentage of specified waste in the monofill.

(s) "Nuisance" means either of the following situations, if caused by or a result of the management of solid wastes in violation of K.S.A. 65-3401 *et seq.*, and amendments thereto, or K.A.R. 28-29-2 *et seq.*:

(1) A situation that is injurious to health or offensve to the senses or that obstructs the free use of property so as to interfere with the comfortable enjoyment of life or property; or

(2) a situation that adversely affects the entire community or neighborhood, or any substantial number of persons, even though the extent of the annoyance or damage inflicted on individuals is unequal.

(t) "Official plan" means a comprehensive plan submitted to and approved by the secretary as provided in K.S.A. 65-3405, and amendments thereto.

(u) "On site" means on the premises where solid waste generation occurs, including two or more pieces of property that are divided only by public or private rights-of-way and that are otherwise contiguous.

(v) "Open burning" means the burning of any materials without all of the following characteristics:

(1) Control of combustion air to maintain adequate temperature for efficient combustion;

(2) containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

(3) control of emission of the gaseous combustion products.

(w) "Permit" means a written permit issued by the secretary that by its conditions may authorize the permittee to construct, install, modify, or operate a specified solid waste disposal area or solid waste processing facility.

(x) "Processing of wastes" means the extraction of materials, transfer, volume reduction, conversion to energy, or other separation and preparation of solid waste for reuse or disposal.

(y) "Putrescible wastes" means solid waste that

contains organic matter capable of being decomposed by microorganisms and that is capable of attracting or providing food for birds and disease vectors.

(z) "Resource recovery" means the recovery of material or energy from solid waste.

(aa) "Salvaging" means the controlled removal of reusable materials from solid waste.

(bb) "Sanitary landfill" means a method of disposing of solid wastes on land without creating nuisances or hazards to the public health or safety or the environment at a permitted solid waste disposal area that meets the standards prescribed in K.A.R. 28-29-23.

(cc) "Source-separated organic waste" means organic material that has been separated from noncompostable material at the point of generation and shall include the following wastes:

1) Vegetative food waste;

2) soiled or unrecyclable paper;

3) sewage sludge;

4) other wastes with similar properties, as determined by the department; and

5) yard waste in combination with these materials.

(dd) "Storage" means the containment of solid wastes in a manner that shall not constitute disposal or processing, under one of the following conditions:

(1) Precollection. Storage by the generator, on or adjacent to the premises, before initial collection. Under these regulations, precollection storage shall not require a processing facility permit.

(2) Postcollection. Storage by the processor or a collector, while the waste is awaiting processing or transfer to a disposal or recovery facility. Under these regulations, postcollection storage shall require a processing facility permit.

(ee) "Vegetative food waste" means food waste and food processing waste from materials including fruits, vegetables, and grains. Vegetative food waste shall not refer to animal products or by-products, including dairy products, animal fat, bones, or meat.

(ff) "Water pollution" means contamination or alteration of the physical, chemical, or biological properties of any waters of the state that creates a nuisance or that renders these waters harmful to public health, safety, or welfare; harmful to the plant, animal, or aquatic life of the state; or unsuitable for beneficial uses.

(gg)"Yard waste" means vegetative waste generated from ordinary yard maintenance, including grass clippings, leaves, branches less than 0.5 inches in diameter, wood chips and ground wood less than 0.5 inches in diameter, and garden wastes. (Authorized by and implementing K.S.A.1998 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended October 1, 1999.)

28-29-4. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10,1981; revoked May 1, 1982.)

28-29-5. Revoked. (Authorized by K.S.A. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-6. Permits and engineering plans.

(a) Application for permits. Every person desiring to obtain a permit shall file an application for a permit for the proposed solid waste disposal area or processing facility with the department at least thirty (30) days before the date the person wishes to start construction, alteration, or operation of the disposal area or processing facility. The application shall be on forms furnished by the department.

(b) Design plans and engineering reports.

(1) Design and closure plans and engineering reports required under these regulations shall bear the seal and signature of a professional engineer licensed to practice in Kansas.

(2) Waiver. Plans, designs, and relevant data for the construction of the following solid waste disposal areas and processing facilities, need not be prepared by a professional engineer provided that a review of these plans is conducted by a professional engineer licensed to practice in Kansas:

(A) Solid waste processing facilities when the equipment is originally manufactured for those purposes and installation is supervised by the vendor, or when the equipment requires only fencing, buildings, and connection to utility lines to be operational;

(B) Construction and demolition landfills; and

(C) Solid waste disposal areas considered by the department to be located in secure geological formations, which are a part of a solid waste management system established pursuant to K.S.A. 65-3401 et seq., and which are expected to receive less than one hundred (100) tons of solid waste annually.

(c) Permit considerations. Any permit issued by the secretary shall, where appropriate, be reviewed with respect to all responsibilities within the department.

(d) Transfer of permits. Before any assignment, sale, conveyance, or transfer of all or any part of the property upon which a solid waste processing facility, or solid waste disposal area is or has been located, and before any change in the responsibility of operating a processing facility or disposal area is made, the permittee shall notify the department, in writing, of the intent to transfer title or operating responsibility, at least thirty (30) days in advance of the date of transfer. The person to whom the transfer is to be made shall not operate the solid waste processing facility or disposal area until the secretary issues a permit to that person. The person to whom the transfer is to be made shall submit the following:

(1) A permit application and plans, maps, and data as required by subsection (a) of this regulation;

(2) Plans satisfactory to the department for correcting any existing permit violations; and

(3) Substantiation in writing that the applicant has copies of all approved maps, plans, and specifications relating to the solid waste processing facility or disposal area.

(e) Conformity with official plan. Permits shall not be issued by the secretary until the applicant has secured, from the board of county commissioners or from the mayor of an incorporated city having an official plan, certification that the proposed facility is consistent with the official plan. This approval shall not be required when the official plan does not provide for management of the solid waste(s) to be processed or disposed.

(f) Reopening closed sites or facilities. Any person proposing to reopen, excavate, disrupt, or remove any solid waste from any solid waste disposal area where operations have been terminated shall secure a new permit as specified in paragraph (a) of this regulation. Applications for a permit shall include, where applicable, an operational plan stating the area involved, lines and grades defining limits of excavation, estimated number of cubic yards of material to be excavated, location where excavated solid waste is to be deposited, the estimated time required for excavation, and a plan for restoring the site.

(g) Emergency provisions. In emergency situations involving solid waste which requires storage, transportation, or disposal on a one-time basis or other special cases where strict adherence to these regulations would result in undue hardships or unnecessary delays, the department can prescribe on a case-by-case basis, the procedures and conditions necessary for the safe and effective management of the wastes. The generator shall not take action in these cases except as immediately necessary for the protection of human health or the environment, until the action is approved by the department. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-6a. Public notice of permit actions, public comment period, and public hearings.

(a) Public notice and comment period.

(1) Scope and timing. A public notice shall be given by the department when a municipal solid waste landfill permit action has been proposed under K.A.R. 28-29-6 or when a public hearing has been scheduled pursuant to subsection (b) of this regulation.

(A) Public notice shall be required for a draft permit or any proposed significant modifications to a permit by the department.

(B) Public notice shall be required for any public hearing on a permit action.

(C) A public notice shall not be required when suspension, denial or revocation, or non-significant modification of a permit is proposed by the department.

(D) A public notice may describe more than one permit action or hearing.

(E) Each public notice shall be published not less than 30 days prior to the hearing or proposed action.

(2) Procedures.

(A) Each public notice shall be published in the Kansas register.

(B) Where a proposed action or hearing may generate significant local interest, a public notice shall also be published in a newspaper having major circulation in the vicinity of the proposed action or hearing.

(3) Contents of public notice. Each public notice issued under this regulation shall contain the following information:

(A) The name and address of the office processing the permit action for which notice is being given;

(B) the name and location of the facility for which the permit action is proposed;

(C) a map of the facility for which the permit action is proposed;

(D) a brief description of the activity to be conducted at the facility for which the permit action is proposed;

(E) the name, address, and telephone number of the person from whom interested persons may obtain or review additional information;

(F) the time and place of any hearing that will be held; and

(G) a brief description of the comment procedures outlined in subsections (b) and (c) of this regulation.

(b) Public comments. During the public comment period provided in subsection (a) of this regulation, any interested person may submit written comments. All comments, except those concerning determinations by local government units that the proposed permit action conforms with the official plan, shall become a part of the permit record and shall be considered in making a final decision on the proposed permit action.

(c) Public hearings. If the department determines there is sufficient local interest in a proposed permit action, a public hearing may be scheduled. All written and verbal comments received during a public hearing provided in subsection (a) of this regulation shall become a part of the permit record and be considered in making a final decision on the proposed permit action.

(d) Response to comments. A response to comments shall be issued at the time any final permit decision is issued. The response shall be available to the public and shall:

(1) Specify what, if any, changes were made to the proposed action as a result of public comment; and

(2) briefly respond to any significant comments received during the public comment period. (Authorized by K.S.A. 65-3406; amended by L. 1993, Ch. 274, Sec. 2; implementing K.S.A. 65-3401; effective March 21, 1994.)

28-29-7. Conditions of permits.

(a) When granting a permit, the secretary shall consider and stipulate: the types of solid wastes which may be accepted or disposed, special operating conditions, procedures, and changes necessary to comply with these and other state or federal laws and regulations.

(b) When the department determines that a solid waste has or may have value as a recoverable resource, a permit may require or may be modified to require segregation of the materials, processing, separate disposal, and marking to allow future retrieval of the materials.

(c) The department may specify conditions or a date upon which each permit will expire. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-8. Modifications of permits.

(a) The permittee shall notify the department in writing at least thirty (30) days before any proposed modification of operation or construction from that described in the plan of operation or permit. The permittee shall not proceed with the modification until

the department provides written approval.

(b) The department may at any time modify a permit or any term or condition of a permit to include: special conditions required to comply with the requirements of these regulations; to avoid hazards to public health, or the environment or to abate a public nuisance; or to include modifications proposed by the permittee and approved by the department. Permits may be modified when:

(1) The permittee is not able to comply with the terms or conditions of the permit due to an act of God, a strike against someone other than the permittee, material shortage, or other conditions over which the permittee has little or no control; or

(2) New technology that can provide significantly better protection for health and environmental resources of the state becomes available.

(c) The permittee shall take prompt action to comply with the new special conditions, or within fifteen (15) days of receipt of notification of the new special conditions, request a hearing before the secretary in accordance with K.S.A. 65-3412. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-9. Suspension of permits.

(a) A permit shall be suspended by the department when in the opinion of the secretary this action is necessary to protect the public health or welfare, or the environment. The secretary shall notify the permittee of the suspension and the effective date. At the time of giving this notice, the secretary shall identify items of noncompliance with the requirements of these regulations or with conditions of the permit and shall specify deficiencies which the permittee shall correct, actions which the permittee shall perform, and the date or dates by which the permittee shall submit a plan detailing corrective action taken or to be taken in order to achieve compliance.

(b) The suspension shall remain in effect until the deficiencies are corrected to the satisfaction of the secretary or until the secretary makes a final determination based on the outcome of a hearing requested by the permittee under the provisions of K.S.A. 65-3412 or amendments of that statute. The determination may result in termination of the suspension, continuation of the suspension, or modification or revocation of the permit.

(c) Permits shall be suspended for failure to pay the permit fee required by K.S.A. 65-3407 or amendments of that statute. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 6503406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-10. Denial or revocation of permits.

(a) A permit may be denied or revoked for any of the following reasons:

(1) Misrepresentation or omission of a significant fact by the permittee either in the application for the permit or in information subsequently reported to the department;

(2) Improper functioning or operation of processing facility or the disposal area that causes pollution or degradation of the environment or the creation of a public health hazard or a nuisance;

(3) Violation of any provision of K.S.A. 65-3401 et seq. or these rules and regulations or other restrictions set forth in the permit or in a variance;

(4) Failure to comply with the official plan; or

(5) Failure to comply with an order or a modification to a permit issued by the secretary.

(b) Any person aggrieved by the denial or revocation of a permit may request a hearing under the provision of K.S.A. 65-3412 or amendments of that statute. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-11. Revoked. (Authorized by K.S.A. 65-3406;effective, E-79-22, Sept.1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-12. Notification of closure, closure plans, and long term care.

(a) Notification of closure. All permittees shall notify the department in writing at least 60 days before closure.

(b) Closure plans. Persons desiring to obtain a permit shall file a site closure plan at the time a permit application is submitted. The closure plan shall delineate the finished construction of the processing facility or disposal area after closure. Closure plans for disposal areas shall also provide for long term care when wastes are to remain at the area after closure. The plan shall be updated at the time of permit renewal or at the time notice of modification is submitted in accordance with K.A.R. 28-29-8(a), or at the time the notice of closure is submitted.

(c) If wastes are to remain at the disposal area after closure the department may require the closure plan be prepared by a professional engineer licensed to practice in Kansas. Upon completion of all the procedures provided for in the closure plan, the engineer shall certify that the disposal area was closed in accordance with the plan.

(d) Closure plan contents. The closure plan shall include the following when determined applicable by the secretary:

(1) Plans for the final contours, type and depth of cover material, landscaping, and access control;

(2) final surface water drainage patterns and runoff retention basins;

(3) plans for the construction of liners, leachate collection and treatment systems, gas migration barriers or other gas controls;

(4) cross sections of the site that delineate the disposal or storage locations of wastes. The cross sections shall depict liners, leachate collection systems, the waste cover, and other applicable details;

(5) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, runoff retention basins, landscaping, and access control;

(6) removal of all solid wastes from processing facilities;

(7) plans for monitoring and surveillance activities after closure;

(8) recording of a detailed site description, including a plot plan, with the department. The plot plan shall include the summaries of the logs or ledgers of waste in each cell, depth of fill in each cell and existing conditions;

(9) a financial plan for utilization of the surety bond or cash bond required by K.S.A. 65-3407; and

(10) an estimate of the annual post closure and maintenance costs.

(e) Long-term care. The owner of a solid waste disposal area, where the wastes are not removed as a part of the closure plan, shall provide long-term care for a period of at least 30 years following approval by the department of completion of the procedures specified in the closure plan. At the time of application for, or at the time of closure of, a solid waste disposal area permit, additional periods of long-term care may be specified by the secretary as the secretary deems necessary to protect public health or welfare, or the environment. (Authorized by K.S.A. 1996 Supp. 65-3406; as amended by L. 1997, Ch.139,Sec. 1; implementing K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 140, Sec. 4; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended July 10, 1998.)

28-29-13. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-14. Revoked. (Authorized by K.S.A. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-15. Revoked. (Authorized by K.S.A. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-16. Inspections.

(a) The secretary or any duly authorized representative of the secretary, at any reasonable hour of the day, having identified themselves and giving notice of their purpose, may:

(1) Enter a factory, plant, construction site, solid waste disposal area, solid waste processing facility, or any environment where solid wastes are generated, stored, handled, processed, or disposed, and inspect the premises and gather information of existing conditions and procedures;

(2) Obtain samples of solid waste from any person or from the property of any person, including samples from any vehicle in which solid wastes are being transported;

(3) Drill test wells on the affected property of any person holding a permit or liable for a permit under K.S.A. 65-3407 or amendments of that statute and obtain samples from the wells;

(4) Conduct tests, analyses, and evaluations of solid waste to determine whether the requirements of these regulations are otherwise applicable to, or violated by, the situation observed during the inspection;

(5) Obtain samples of any containers or labels; and

(6) Inspect and copy any records, reports, information, or test results relating to wastes generated, stored, transported, processed, or disposed.

(b) If during the inspection, unidentified or unpermitted waste storage or handling procedures are discovered, the department's representative may instruct the operator of the facility to retain and properly store solid or hazardous wastes, pertinent records, samples, and other items. These materials shall be retained by the operator until the identification and handling of the waste is approved by the department.

(c) When obtaining samples, the department's representative shall allow the facility operator to collect duplicate samples for separate analysis. Analytical data that might reveal trade secrets shall be treated as confidential by the department, when requested by the owner. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-17. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-17a. Revoked. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective, E-82-8, April 10, 1981; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked February 24, 2000.)

28-29-17b. Revoked. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked February 24, 2000.)

28-29-18. Insurance required.

(a) Each person operating a solid waste processing facility or disposal area shall secure and maintain liability insurance for claims arising from injuries to other parties, including bodily injury or damage to property of others. This insurance shall be of the types and in not less than the amounts listed in subsections (d) and (e) below. Each person securing a permit shall file evidence of satisfactory insurance coverage at the time the department issues the permit and before any site development work is started.

(b) The liability insurance shall be issued by an insurance company authorized to do business in Kansas or through a licensed insurance agent operating under the authority of K.S.A. 1982 Supp. 40-246b. The liability insurance shall be subject to the insurer's policy provisions filed with and approved by the commissioner of insurance pursuant to K.S.A. 40-216, except as authorized by K.S.A. 1982 Supp. 40-246b.

(c) A certificate or memorandum of insurance shall be furnished to the department for its approval showing specifically the coverage and limits, together with the name of the insurance company and insurance agent. If any of the coverages set forth on these certificates or memorandums of insurance are reduced, canceled, terminated, or non-renewed, the permittee or insurance

company shall, not less than 30 days before the effective date of the action, furnish the department with appropriate notices of that action. Timely proof of periodic renewal shall be furnished to the department by submittal of a certificate or memorandum of insurance before the expiration date of the policy.

(d) The permit application and all other factors shall be reviewed by the department to determine an adequate amount of insurance coverage for each disposal area or processing facility. The determination shall be based on the types of waste disposed, and on the location and area of the site. The policy shall provide coverage, including completed operations coverage, with a minimum liability limit of $500,000 for bodily injury and $200,000 for property damage. The policy shall have not more than a $5,000 deductible for each occurrence. The minimum coverage shall include the following exposures:

(1) Coverage of premises and operations, including operations of independent contractors;

(2) Coverage for contamination or pollution; and

(3) Extension of the contamination and pollution liability coverage for vehicles of the solid waste processing facility or disposal area when these vehicles are away from the permittee's premises.

(e) The department shall specify, at the time a permit is issued, whether the permittee must furnish coverage specifically for contamination, pollution or property damage arising from a non-sudden occurrence. Minimum coverage required for a non-sudden occurrence shall be $1,000,000, with a $25,000 deductible for each occurrence.

(f) Insurance policies furnished under this regulation shall contain the following endorsements:

(1) Any deductible amount provided for in any part of the policy shall be paid by the insurer upon establishment of legal liability of any insured and the insurer shall be entitled to recover from the insured for that deductible amount.

(2) Contractual liability coverage specifically referring to and covering the obligation of the permittee to defend, indemnify and hold harmless the state of Kansas, and its officers, agents and employees, both officially and personally, from alleged claims or causes of action for personal injury, property damage or devaluation arising out of the issuance of the permit or operation of any site or facility thereunder.

(g) Any applicant may request the department to evaluate the hazard or hazards involved and may request a variance, under K.A.R. 28-29-2, from the specific insurance coverage amounts prescribed in this regulation when:

(1) The solid waste management activity is conducted solely on the premise where the wastes are generated;

(2) The applicant performs the waste management activity;

(3) The applicant is the owner of the property where the activity is conducted; and

(4) The applicant is able to demonstrate other financial responsibility satisfactory to the secretary. (Authorized by K.S.A. 1983 Supp. 65-3406; implementing K.S.A. 1983 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984.)

28-29-19. Monitoring required. As a condition for issuing a permit, the secretary may require the approval, installation, and operation of environmental quality monitoring systems before the acceptance of solid wastes for storage, processing, or disposal. Approval of the monitoring system(s) will be based on the following:

(a) The location of monitoring wells, air monitoring stations, and other required sampling points;

(b) Plans and specifications for the construction of the monitoring systems;

(c) Frequency of sampling; and

(d) Analyses to be performed. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-20. Restrictive covenants and easements. After July 1, 1982, before any permit

shall be issued or renewed for a solid waste disposal area, when wastes will remain at the disposal area after closure, the secretary may require the owner of the disposal area to do any or all of the following:

(a) Execute and file with the county register of deeds a restrictive covenant to run with the land that shall:

(1) Specify the uses which may be made of the disposal area after closure;

(2) Require that any future uses of the property after closure shall be conducted in a manner so as to preserve the integrity of waste containment systems designed, installed and used during operation of the disposal areas, or installed or used during the post-closure maintenance period;

(3) Require the owner or tenant to preserve and protect all permanent survey markers and benchmarks installed at the disposal area;

(4) Require the owner or tenant to preserve and protect all environmental monitoring stations installed at the disposal area;

(5) Require subsequent property owners or tenants to consult with the department during planning of any improvement to the site and to receive approval from the department before commencing any excavation or construction of permanent structures, drainage ditches, alteration of contours, removal of waste materials stored on the site, changes in vegetation grown on areas used for waste disposal, the production, use or sale of food chain crops grown on land used for waste disposal, or removal of security fencing, signs, or other devices installed or used to restrict public access to waste storage or disposal areas; and

(6) Provide terms whereby modifications to the restrictive covenant or other land uses may be initiated or proposed by property owners.

(b) Execute an easement whereby the department, its duly authorized agents or contractors employed by or on behalf of the department may enter the premises to:

(1) Complete items of work specified in a site closure plan required to be submitted by K.A.R. 28-29-12;

(2) Perform any item of work necessary to maintain or monitor the area during the postclosure period; and

(3) Sample, repair, or reconstruct environmental monitoring stations constructed as part of the site operating or post-closure requirements.

(c) Any offer or contract for the conveyance of easement, title, or other interest to real estate used for the long-term storage or disposal of solid waste shall contain a complete disclosure of all terms, conditions, and provisions for long-term care and subsequent land uses which are imposed by these regulations or the site permit authorized and issued under K.S.A. 65-3401 et seq. Conveyance of title, easement, or other interest in the property shall not be consummated without adequate and complete provisions for the continued maintenance of waste containment and monitoring systems.

(d) All covenants, easements, and other documents related to this regulation shall be permanent, unless extinguished by agreement between the property owner and the secretary. Recording fees shall be paid by the permittee. (Authorized by K.S.A. 1981 Supp. 65-3406; implementing K.S.A. 1981 Supp 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-20a. Laboratory certification. All monitoring analyses required under K.A.R. 28-29-19, and amendments to it, shall be conducted by a laboratory certified or approved by the department to perform these analyses. Laboratories desiring to be certified to perform these analyses shall comply with all conditions, procedures, standards, and fee requirements specified in K.A.R. 28-15-35 and 28-15-37, and amendments to them. (Authorized by and implementing K.S.A. 1981 Supp 65-3406; effective, E-82-8, April 10, 1981; effective May 1, 1982.)

Part 2. Standards for Management of Solid Wastes

28-29-21. Storage of solid wastes.

(a) General. The owner or occupant or both of any premise, business establishment, or industrial plant shall provide sanitary storage for all solid waste not classified

as hazardous wastes produced on his or her property which meets standards set forth in these regulations and the official plan for the area. All solid waste shall be stored so that it: does not attract disease vectors; does not provide shelter or a breeding place for disease vectors; does not create a health or safety hazard; is not unsightly; and the production of offensive odors is minimized. Each premise shall be provided with a sufficient number of acceptable containers to accommodate all solid waste materials other than bulky wastes that accumulate on the premises between scheduled removals of these materials. On premises where the quantity of solid wastes generated is sufficient to make the use of individual storage containers impractical, bulk containers may be used for storage of refuse. The bulk container may be equipped with compaction equipment and shall be a size, design, and capacity compatible with the collection equipment. Containers shall be constructed of durable metal or plastic material, be easily cleaned, and be equipped with tight-fitting lids or doors that can be easily closed and opened.

(b) Specific storage standards.

(1) Garbage and putrescible wastes shall be stored in:

(A) Rigid containers that are durable, rust resistant, nonabsorbent, water tight, and rodent proof. The container shall be easily cleaned, fixed with close-fitting lids, fly- tight covers, and provided with suitable handles or bails to facilitate handling;

(B) Rigid containers equipped with disposable liners made of reinforced kraft paper or polyethylene or other similar material designed for storage of garbage;

(C) Nonrigid disposable bags designed for storage of garbage. The bag shall be provided with a wallhung or free standing holder which supports and seals the bag; prevents insects, rodents, and animals from access to the contents; and prevents rain and snow from falling into the bag; or

(D) Other types of containers meeting the requirements of 16 Code of Federal Regulations Chapter II Subchapter B, part 1301 in effect June 13, 1977, and paragraph (a) of this regulation and that are acceptable to the collection agency.

(2) Mixed refuse. When putrescible wastes and nonputrescible refuse are stored together, the container shall meet the standards and requirements of paragraph (b)(1) of this regulation.

(3) Nonputrescible bulky wastes. The wastes shall be stored temporarily in any manner that does not create a health hazard, fire hazard, rodent harborage, or permit any unsightly conditions to develop, and is in accordance with any locally adopted regulations. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-22. Standards for collection and transportation of solid wastes.

(a) Frequency of collection. Solid waste, excluding bulky wastes, shall be removed from the storage containers on residential premises and places of public gathering in accordance with these regulations at least once each week. Garbage and putrescible materials shall be removed from commercial or industrial properties as often as necessary to prevent nuisance conditions but at least once a week. Trash and other combustible materials, free of putrescible material, shall be removed from commercial and industrial properties as often as is necessary to prevent overfilling of the storage facilities or the creation of fire hazards. Bulky wastes, free of putrescible wastes, shall be removed from properties as often as necessary to prevent nuisance conditions from occurring.

(b) Collection equipment. All vehicles and equipment used for collection and transportation of solid waste shall be designed, constructed, maintained, and operated in a manner that will prevent the escape of any solid, semi-liquid, or liquid wastes from the vehicle or container. Collection vehicles shall be maintained and serviced periodically, and should receive periodic safety checks. Safety defects in a vehicle shall be repaired before the vehicle is used.

(c) Solid waste shall not be stored after collection in a collection vehicle for more than 12 hours unless the vehicle is parked in an area in which the land use is predominately industrial or light industrial. Solid wastes

shall not be stored overnight in a collection vehicle parked in an area in which the land use is predominantly residential.

(d) Solid wastes shall not be unloaded from any collection vehicle unless the collection vehicle is a satellite vehicle unloading into a larger vehicle or the unloading point is a permitted processing facility, transfer station or disposal area, except the unloading may be done to facilitate repairs, to extinguish a fire, or for other emergency. When a vehicle is unloaded due to a emergency situation solid waste shall be reloaded and removed promptly, after the emergency no longer exists.

(e) The person operating the collection system shall provide for prompt cleanup of all spillages caused by the collection operation.

(f) The person operating the collection system shall provide for prompt collection of any waste materials lost from the collection vehicles along the route to a disposal area or processing facility. (authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-23. Standards for solid waste processing facilities and disposal areas. All solid waste disposal areas and solid waste processing facilities shall be located, designed, operated and maintained in conformity with the following standards:

(a) Acceptable methods of disposal. Nonhazardous solid wastes, industrial solid wastes, and residues from solid waste processing facilities shall be disposed of in a sanitary landfill. Nonputrescible rubble and demolition waste material such as brick, mortar, broken concrete, and similar materials produced in connection with the construction or demolition of buildings or other structures, may be disposed of at a construction and demolition landfill.

(b) Acceptable methods for processing. Combustible solid wastes may be burned in incinerators that conform with the provisions of the air quality control act, K.S.A. 65-3001 et seq. and the regulations adopted under those statutes. Solid wastes may be shredded, separated, and consolidated at shredding, separation, and transfer stations for which a permit has been issued by the secretary. Animal manures, sludges, and solid wastes with high organic content may be processed into compost at an approved composting plant for which a permit has been issued by the secretary.

(c) Planning and design. Planning, design, and operation of any solid waste processing facility or disposal area, including, but not limited to, sanitary landfills, incinerators, compost plants, transfer stations, and other solid waste disposal areas or processing facilities, shall conform with appropriate design and operation standards of the department.

(d) Location. Location of all solid waste disposal areas and solid waste processing facilities shall conform to applicable state laws, and county or city zoning regulations and ordinances. All locations for solid waste disposal areas and processing facilities shall be reviewed and approved by the department before any site development is started. Solid waste disposal areas or processing facilities shall not result in the destruction or adverse modification of the critical habitat of endangered or threatened species or cause or contribute to the taking of any endangered or threatened species as defined by K.S.A. 35-501 et seq. and K.A.R. 23-17-2. Sites disposing of putrescible wastes shall not be located in areas where the attraction of birds can cause a significant bird hazard to low flying aircraft. A minimum separation of twenty-five (25) feet shall be maintained between a disposal operation and any pipeline, underground utility, or electrical transmission line easement. Sanitary landfills shall not be located within the one hundred (100) year frequency floodplain unless protected by flood control levees and other appurtenances designed to prevent washout of solid waste from the site.

(e) Access roads. Access roads to the disposal area or processing facility shall be of all-weather construction and negotiable at all times by trucks and other vehicles. Load limits on bridges and access roads shall be sufficient to support all traffic loads which will be generated by use of the area or facility.

(f) Reports required. Operators of all solid waste

disposal areas and processing facilities shall maintain suitable records of volumes or tonnage of solid wastes received, land area used, population served, area served, and any other information required by the conditions of the permit. All information shall be summarized and reported to the department on forms furnished by the department.

(g) Air quality. The operator of every solid waste disposal area or solid waste processing facility shall conform to all applicable provisions of K.S.A. 65-3001 et seq., any regulations adopted under those statutes, and any local regulations pertaining to air quality.

(h) Communication. Two-way communications shall be available to all solid waste processing facilities or disposal areas.

(i) Fire protection. Arrangements shall be made for fire protection services when a fire protection district or other public fire protection service is available. When this service is not available, practical alternate arrangements shall be provided at all sites. In case of accidental fires at the site, the operator shall be responsible for initiating and continuing appropriate fire fighting methods until all smoldering, smoking, and burning ceases. All disruption of finished grades, or covered or completed surfaces, shall be covered and regraded upon completion of fire fighting activities.

(j) Limited access. Access to a solid waste disposal area or processing facility shall be limited to hours when an attendant or operating personnel are at the site. A gate or barrier and fencing approved by the department shall be erected to prevent access to the solid waste disposal area or processing facility during hours when the area or facility is closed. Access by unauthorized vehicles or pedestrians shall be prohibited.

(k) Hours of operation. Hours of operation and other limitations shall be prominently posted at the entrance of the disposal area or facility.

(l) Salvage. Salvage or reclamation of materials shall be permitted only when facilities specifically designed for salvaging or processing solid wastes are provided, and when the salvage materials are controlled to prevent interference with prompt, sanitary disposal of solid wastes. All salvage operations shall be conducted in a manner that will not create a nuisance.

(m) Safety. An operational safety program approved by the department shall be provided for employees at solid waste processing facilities and disposal areas.

(n) Disease vector control. Solid waste processing facilities and disposal areas shall be operated in a manner which will prevent the harborage or breeding of insects or rodents. Whenever supplemental disease vector control measures are necessary, these measures shall be promptly carried out.

(o) Aesthetics. Odors and particulates, including dust and litter, shall be controlled by daily application of cover material, sight screening or other means to prevent damage or nuisance. Construction and demolition landfills or other solid waste disposal areas receiving only nonputrescible waste materials may apply cover material at a less frequent rate if approved by the department.

(p) Gas control. The concentration of explosive gasses generated by the decomposition of solid waste disposed of on the site shall not exceed 25 percent of the lower explosive limit in on site structures (excluding gas control or recovery system components) or at facility property line. As used in this section "lower explosive limit" means the lowest percent by volume of a mixture of methane which will propagate a flame in air at 25ºC and atmospheric pressure. Toxic or asphyxiating gases in concentrations harmful to humans, animals, or plant life shall not be allowed to migrate off site or accumulated in facility structures.

(q) Water pollution. Solid waste processing facilities and disposal areas, which include a point source of discharge of pollutants or solid wastes to off-site surface waters, shall comply with terms of a permit issued under K.S.A. 65-164 et seq. Facilities shall be designed to prevent nonpoint source pollution discharges violating applicable legal requirements implementing the Kansas statewide water quality management plan in effect on November 1, 1981 approved under section 208 of Public Law 92-500 (the Clean Water Act) as amended. Solid waste disposal areas and processing facilities shall be designed and operated so as to prevent a discharge of dredge or fill

material that is in violation of section 404 of PL 92-500 (the clean water act), as in effect on November 1, 1981. Solid wastes shall not be placed in unconfined waters which are subject to free movement on the surface, in the ground or within a larger body of water. If ground water which passes beneath a disposal facility is currently used as a public drinking water supply or is designated by the state of Kansas for future use as a drinking water supply, the naturally occurring ground water quality beyond the disposal site property boundary shall not be degraded. If ground water which passes beneath a disposal area or processing facility is currently used or designated by the state for purposes other than as a drinking water supply, the ground water beyond the disposal area property boundary shall be maintained at a quality as specified in the disposal area permit.

(r) Maps required. The operator shall maintain a log of commercial or industrial solid wastes received including sludges, liquids, or barreled wastes. The log shall indicate the source and quantity of waste and the disposal location. The areas used for disposal of these wastes and other large quantities of bulk wastes shall be clearly shown on a map and referenced to the boundaries of the tract or other permanent markings.

(s) Disposal of sewage and industrial liquids or sludges. Sewage or industrial solid waste liquids or sludges shall not be disposed in a sanitary landfill designed for the disposal of mixed refuse until the department has been notified and specific arrangements for handling the wastes have been approved by the department.

(t) Disposal of hazardous waste. Hazardous waste shall not be disposed of in a sanitary landfill. For the purposes of this subsection, "hazardous waste" means any waste determined by the secretary, under section 1 of chapter 251 of the 1981 session laws of Kansas, to be a hazardous waste and listed by the secretary as a hazardous waste in K.A.R. 28-31-3.

(u) The provisions of 40 Code of Federal Regulations Part 257.3-5 (application to land used for food chain crops), as in effect on September 23, 1981, and part 257.3-6 (disease), as in effect on September 23, 1981, are incorporated by reference. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-23a. Standards for solid waste transfer stations.

(a) Applicability. Each solid waste transfer station shall be subject to the requirements of this regulation.

(b) Design requirements.

(1) Each solid waste transfer station processing, tipping, sorting, storage and compaction area shall be subject to the following design requirements, unless an alternate design is approved by the director.

(A) Each processing, tipping, sorting, storage and compaction area shall be located in an enclosed building or covered area.

(B) Each unloading area shall be of adequate size and design to allow for:

(i) efficient unloading from collection vehicles; and

(ii) unobstructed movement of vehicles.

(C) Each unloading and loading area shall be constructed of concrete or asphalt paving material.

(D) Each solid waste transfer station shall have sufficient capacity to store two days worth of solid waste in the event of an interruption in transportation or disposal service. The capacity of any trailer parked within the boundaries of the permitted site may be included as a part of the two day capacity.

(E) Each solid waste transfer station shall be large enough to segregate special wastes, including medical waste and asbestos, if special wastes will be managed at the transfer station.

(2) Each solid waste transfer station structure shall be subject to the following design requirements, unless an alternate design is approved by the director.

(A) Each enclosed structure shall be equipped with an exhaust system capable of removing accumulations of noxious or flammable gases.

(B) Each structure shall be constructed of materials that will not absorb odors or liquids from the waste.

(C) Each structure shall have a main doorway and roof of sufficient height to allow trucks that will routinely utilize the transfer station to unload.

(3) Each solid waste transfer station access road shall be subject to the following requirements.

(A) Each access road shall be designed to accommodate expected traffic flow in a safe and efficient manner.

(B) Each access road shall be constructed with a road base that is capable of withstanding expected loads.

(C) Each on-site road shall be passable by loaded collection and transfer vehicles in all weather conditions.

(4) Each solid waste transfer station shall be subject to the following general requirements.

(A) The design of each transfer stations shall minimize wind-blown litter.

(B) Control of stormwater shall be provided.

(C) Weighing or measuring capabilities shall be provided for all solid waste processed at the facility.

(D) Each owner or operator of a solid waste transfer station shall evaluate the feasibility of constructing an area at the transfer station site so that the following activities could be conducted:

(i) storage of white goods;

(ii) separation of materials for recycling;

(iii) separation of materials for composting; or

(iv) other solid waste management activities.

(E) Water shall be provided in sufficient quantity and pressure to wash down the unloading, loading, and storage areas of the transfer station.

(F) Collection of washdown water and stormwater contacting solid waste shall be provided.

(G) The following amenities shall be provided for transfer station workers:

(i) sanitary facilities;

(ii) drinking water; and

(iii) handwashing water.

(c) Operating requirements. Each solid waste transfer station owner or operator shall comply with the following operating requirements.

(1) Wastes accepted at the solid waste transfer station shall consist of residential waste and commercial waste.

(2) The following wastes shall not be accepted at any solid waste transfer station unless handling plans have been specifically approved by the department:

(A) medical waste;

(B) asbestos waste; or

(C) other special wastes.

(3) Any solid waste passing through a solid waste transfer station shall be ultimately treated or disposed of at:

(A) a solid waste management facility authorized by the department if the facility is located in Kansas; or

(B) a solid waste management facility authorized by the appropriate governmental agency if the facility is located in another state.

(4) Each access point to a solid waste transfer station shall have a sign posted that states:

(A) the hours of operation of the transfer station;

(B) the types of solid waste that shall be accepted at the transfer station;

(C) the types of wastes that shall not be accepted at the transfer station;

(D) the name, address and telephone number of the transfer station owner and operator; and

(E) the telephone number of an emergency contact person available during non-operating hours.

(5) Each time the solid waste transfer station is open, an attendant shall be on duty.

(6) Provisions shall be made to prevent vehicles from backing into the receiving pits while unloading.

(7) Access to the facility by unauthorized persons shall be limited each time the station is closed.

(8) Procedures for preventing unauthorized receipt of regulated hazardous wastes as defined pursuant to K.A.R. 28-31-3 and K.A.R. 28-29-4, polychlorinated biphenyl (PCB) wastes as defined in 40 CFR part 761 as in effect July 1, 1992, or other wastes not addressed in the transfer station operating plan shall be developed and implemented.

(9) Blowing litter at the solid waste transfer station shall be controlled.

(10) Vectors at the solid waste transfer station shall be controlled.

(11) Each solid waste transfer station shall be cleaned as necessary to:

(A) minimize odors;

(B) minimize vectors; and

(C) provide a safe working environment.

(12) All drainage from wet cleaning of any solid waste transfer station shall be:

(A) discharged to a sanitary sewer; or

(B) managed by another method approved by the director.

(13) Each day that waste is received at any solid waste transfer station, the transfer station shall be cleaned by an appropriate method to minimize odors and nuisance conditions.

(14) All on-site roads at a solid waste transfer station site shall be maintained to minimize dust.

(15) Any solid waste received at a solid waste transfer station shall be loaded into a transfer vehicle by the next day of operation at the transfer station.

(16) Each transfer vehicle shall be removed from the transfer station site within 48 hours after being filled to capacity. Each transfer vehicle not filled to capacity in any seven day period shall be removed from the transfer station site before the end of the seven day period, unless weather, or other abnormal conditions prevent transportation of the transfer vehicle.

(17) Each solid waste transfer station shall be equipped with fire protection equipment that is:

(A) available at all times; and

(B) capable of extinguishing fire resulting from:

(i) hot ashes;

(ii) oxidizers; or

(iii) other fire sources.

(18) An on-site operating record shall be maintained by the transfer station owner or operator. Each record shall be maintained for a minimum of three years. The operating record shall contain the following information:

(A) a daily log of the quantity of solid waste received;

(B) a daily log of the quantity of solid waste transported;

(C) a daily log of the destination of the solid waste transported;

(D) a daily log of any special waste received;

(E) a daily log of any special waste transported;

(F) a copy of each special waste disposal authorization written to the transfer station owner or operator;

(G) a copy of transfer station employee training records; and

(H) a copy of the current facility permit, including the following:

(i) all facility design plans; and

(ii) the facility operating plan.

(19) Each owner or operator shall prepare and submit an annual report to the department by March 1 of each year. The report shall contain:

(A) the weight or volume of solid waste received;

(B) the destination of the solid waste transferred;

(C) the weight or volume of each type of material recovered at the transfer station; and

(D) any changes in the operation that have occurred in the previous year.

(20) Each owner or operator shall develop a contingency plan for the solid waste transfer station. The contingency plan shall:

(A) specify any procedures that shall be initiated if the solid waste transfer station experiences:

(i) an equipment breakdown;

(ii) a fire;

(iii) a receipt of hazardous material;

(iv) a release of a regulated quantity of any waste; or

(v) any other incident that may cause an emergency or suspend operations at the transfer station; and

(B) be available at any time at the transfer station.

(21) Employee training.

(A) The owner or operator of each solid waste transfer station shall provide training to each transfer station employee on the contents of the contingency plan identified in paragraph (c)(20) of this regulation, and the facility operating plan.

(B) A record of employee training required in paragraph (c)(21)(A) of this regulation shall be maintained in the operating record identified in paragraph (c)(18) of this regulation. (Authorized by K.S.A. 1993 Supp.; 65-3406, implementing K.S.A. 65-3401; effective Feb. 20, 1995.)

28-29-24. Construction and demolition landfills.

(a) A permit to construct or operate a construction and demolition landfill shall not be required for a

construction and demolition landfill operated on the same tract as, and in conjunction with, a permitted sanitary landfill.

(b) If a city or a county, by ordinance or resolution, has established standards equivalent to, or more stringent than, those of the department to control construction and demolition landfills, and demonstrates that it has an enforcing agency to ensure those standards are adhered to, the department will issue a permit to the person operating the site upon certification by the enforcement division of the city or county to the department that those standards will be followed.(Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-25. Standards for solid waste processing facilities.

(a) Incinerators. All incinerators used for combustion of solid wastes shall be designed and operated in conformity with K.S.A. 65-3001 et seq. and rules and regulations adopted under those statutes. All emission control devices, disposal of incinerator residues, and treatment of wastewater shall be approved by the department.

(b) Other methods of solid waste handling, processing, and disposal. Before any disposal area or processing facility, or any method of solid waste handling, processing, or disposal, not provided for in these regulations, is practiced or placed into operation, complete plans, specifications, design data, land-use plans, and proposed operation procedures shall be submitted to the department for review and permit issuance in accordance with K.A.R. 28-29-6. (Authorized by and implementing K.S.A. 1981 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; amended May 1, 1982.)

28-29-25a. Small yard waste composting sites. This regulation shall apply to each yard waste composting site that has a composting area of one-half acre or less, but this regulation shall not apply to backyard composting. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.

(a) Site design. The owner or operator of each yard waste composting site shall design and construct the composting site to meet all of the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The operation shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(2) Site access.

(A) At each site that composts yard waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Site name;

(ii) site hours;

(iii) a list of the materials appropriate for composting; and

(iv) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(b) Site operations. The owner or operator of each yard waste composting site shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise; and

(3) remove all finished compost within 18 months of the completion of the composting process.

(c) Site closure. The owner or operator of each yard waste composting site shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the site within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a small yard waste composting site shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-25b. Yard waste composting facilities. This regulation shall apply to each facility that composts yard waste and has a composting area larger than one-half acre. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.

(a) Facility design. The owner or operator of each yard waste composting facility shall design and construct the facility to meet the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) The composting area shall be graded to prevent ponding of liquids.

(D) The surface of the composting area shall be capable of supporting all equipment used**.**

(2) Facility access.

(A) At each facility that composts yard waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow access for managing the composting operation. Yard waste composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).

(3) Capacity and storage. The composting facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each yard waste composting facility shall be exempt from K.A.R. 28-29-23 (j) and shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) segregate incoming waste from finished compost;

(4) inform the public of disposal sites for waste not acceptable for composting at the facility;

(5) begin processing incoming waste within one week of receipt; and

(6) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each yard waste composting facility shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Permit applications. The owner or operator of each yard waste composting facility shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application.

(1) Facility design plan. This design plan shall not

be required to bear the seal and signature of a professional engineer. The facility design plan shall contain all of the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) a detailed drawing of the facility that indicates the location of all of the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities; and

(vi) access control.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the methods to control traffic and to expedite unloading;

(D) the methods for measuring incoming waste;

(E) the methods to control the types of waste received;

(F) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(G) the location of disposal sites for noncompostable wastes;

(H) the method of composting;

(I) a list of equipment to be used;

(J) a description of any additives used in the process;

(K) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(L) the proposed end-use of the compost;

(M) the methods to minimize, manage, and monitor odors;

(N) disease vector, dust, litter, and noise control measures;

(O) leachate and storm water control measures; and

(P) a fire protection and control plan. .

(3) Closure plan. The closure plan shall not be required to bear the seal and signature of a professional engineer. This plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost for removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-25c. Manure composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts manure and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts manure and has a composting area larger than one-half acre. On-site storage of manure shall not be considered composting.

(a) Facility design. The owner or operator of each facility that composts manure shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(2) Facility access.

(A) At each facility that composts manure that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow access for managing the composting operation. Manure composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock manure, other than swine manure, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

(i) 1,320 feet for facilities composting manure from 300 to 999 animal units; and

(ii) 4,000 feet for facilities composting manure from 1,000 or more animal units.

(B) Each facility that composts swine manure shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

(i) 1,320 feet for facilities composting manure from 300 to 999 animal units;

(ii) 4,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and

(iii) 5,000 feet for facilities composting manure from 3,725 or more animal units.

(C) Each facility that composts swine manure shall meet or exceed the following separation distances from any wildlife refuge:

(i) 10,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and

(ii) 16,000 feet for facilities composting manure from 3,725 or more animal units.

(D) For each manure composting operation located at a confined feeding facility, the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.

(5) Exceptions to the separation distances.

(A) The separation distance requirements of paragraphs (a)(4)(A) and (B) of this regulation shall not apply if the owner or operator obtains written agreement from all owners of habitable structures that are within the separation distance, stating that the owners of the habitable structures are aware of the operation and have no objections to the operation. The written agreement shall be filed in the office of the register of deeds of the county in which the habitable structure is located.

(B) The separation distance requirements of paragraph (a)(4)(A) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice.

(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of the separation distances.

(C) The separation distance requirements of paragraphs (4)(B)(i) and (ii) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within

the separation distance.

(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of separation distances.

(iii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.

(D) The separation distance requirements of paragraph (4)(B)(iii) of this regulation may be reduced by the secretary if one of the following conditions applies:

(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.

(ii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.

(E) For each manure composting operation located at a confined feeding facility, exceptions to the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.

(b) Facility operations. The owner or operator of each facility that composts manure shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) segregate incoming waste from finished compost;

(4) limit public access to hours when an attendant or any operating personnel are at the facility;

(5) begin processing incoming waste by the end of the working day; and

(6) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts manure shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure; and

(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a facility that composts manure and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts manure and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain all of the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) a detailed drawing of the facility that indicates the location of the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of

waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for noncompostable wastes;

(I) the method of composting;

(J) a list of equipment to be used;

(K) a description of additives used in the process;

(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(M) the proposed end use of product;

(N) the methods to minimize, manage, and monitor odors;

(O) disease vector, dust, litter, and noise control measures;

(P) leachate and national pollutant discharge elimination system storm water control measures;

(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(R) a contingency plan for events including equipment failure, power outages, natural disasters, receipt of prohibited materials, or other similar interruptions of normal activities; and

(S) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-25d. Livestock composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area larger than one-half acre.

(a) The owner or operator of each facility that composts livestock shall design and construct the facility to meet the following requirements.

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting all equipment used.

(F) The facility shall be constructed with either a floor or a roof that meets one of the following requirements:

(i) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10^{-7} cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater; or

(ii) The receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.

(2) Facility access.

(A) At each facility that composts livestock that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for

composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Facility roads shall be constructed to allow adequate access for managing the composting operation. Each facility that composts livestock shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(4) Separation distances. For the purposes of this regulation, "animal unit," "animal unit capacity," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock from one or more confined feeding facilities, other than confined feeding facilities for swine, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:

(i) 1,320 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999; and

(ii) 4,000 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or more.

(B) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:

(i) 1,320 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999;

(ii) 4,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and

(iii) 5,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.

(C) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any wildlife refuge:

(i) 10,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and

(ii) 16,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.

(D) Exceptions to the separation distances set forth in K.S.A. 65-171d, and amendments thereto, shall apply.

(b) Facility operations. The owner or operator of each facility that composts livestock shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) ensure that dead animals are not visible from municipal roads or habitable structures;

(4) protect the facility from scavenging by animals;

(5) segregate incoming waste from finished compost;

(6) begin processing incoming waste by the end of the working day;

(7) limit public access to hours when an attendant or any operating personnel are at the facility; and

(8) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts livestock shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with dead animals or solid waste.

(d) Registration. Each owner or operator of a facility that composts livestock and has a composting

area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.

(e) Permit applications. The owner or operator of each facility that composts livestock and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;

(D) plan and profile views of the facility indicating the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures; and

(E) information on the permeability of the floor structure.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing non-compostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for non-compostable wastes;

(I) the method of composting;

(J) a list of equipment to be used;

(K) a description of any additives used in the process;

(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(M) the proposed end-use of compost;

(N) the methods to minimize, manage, and monitor odors;

(O) disease vector, dust, litter, and noise control measures;

(P) leachate and national pollutant discharge elimination system storm water control measures;

(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(R) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(S) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1997 Supp. 65-3406 and L. 1998, ch. 143, sec. 37; effective January 8, 1999.)

28-29-25e. Source-separated organic waste composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts source-separated organic waste and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts source-separated organic waste and has a composting area larger than one-half acre.

(a) Facility design. The owner or operator of each facility that composts source-separated organic waste shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting the equipment used.

(2) Facility access.

(A) At each facility that composts source-separated organic waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each facility that composts source-separated organic waste shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) protect the facility from scavenging by animals;

(4) segregate incoming waste from finished compost;

(5) inform the public of disposal sites for waste not acceptable for composting at the facility;

(6) limit public access to hours when an attendant or any operating personnel are at the facility;

(7) begin processing incoming waste within 24 hours of receipt;

(8) if sewage sludge is composted, comply with 40 CFR Part 503, as in effect on February 19, 1993; and

(9) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts source-separated organic waste shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with source-separated organic waste or solid waste.

(d) Registration. Each owner or operator of a facility that composts source-separated organic waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.

(e) Permit applications. The owner or operator of each facility that composts source-separated organic waste and has a composting area larger than one-half

acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and

(D) plan and profile views of the facility indicating the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal site for noncompostable wastes;

(I) the method of composting;

(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer's performance standards. The proposed equipment shall be compatible with the proposed process and throughput;

(K) a description of any additives used in the process;

(L) the methods for managing biological conditions;

(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(N) the proposed end use of compost;

(O) the methods to minimize, manage, and monitor odors;

(P) disease vector, dust, litter, and noise control measures;

(Q) leachate and national pollutant discharge elimination system storm water control measures;

(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(T) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-25f. Solid waste composting. For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts solid waste and has a composting area of one-half acre or less, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste.

Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts solid waste and has a composting area larger than one-half acre, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste.

(a) Facility design. The owner or operator of each solid waste composting facility shall design and construct the facility to meet the following requirements:

(1) Composting surface and drainage.

(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.

(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.

(C) Leachate control shall be provided wherever leachate is generated.

(D) The composting area shall be graded to prevent ponding of liquids.

(E) The surface of the composting area shall be capable of supporting the equipment used.

(F) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10^{-7} cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater.

(G) The receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.

(2) Facility access.

(A) At each facility that composts solid waste that is brought in from off-site, the following information shall be posted on one or more signs:

(i) Facility name;

(ii) permit number;

(iii) site hours;

(iv) traffic flow;

(v) a list of the materials appropriate for composting; and

(vi) the name and telephone number of an emergency contact person.

(B) Unauthorized dumping shall be discouraged by access control.

(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.

(3) Capacity and storage. The facility shall have the capacity to store the following materials:

(A) Incoming materials waiting to be processed;

(B) the materials being processed; and

(C) the finished compost, not to exceed 18 months' production.

(b) Facility operations. The owner or operator of each solid waste composting facility shall perform the following:

(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;

(3) protect the facility from scavenging by animals;

(4) segregate incoming waste from finished compost;

(5) inform the public of disposal sites for waste not acceptable for composting at the facility;

(6) limit public access to hours when an attendant or any operating personnel are at the facility.

(7) begin processing incoming waste within 24 hours of receipt;

(8) use one of the following processes to further reduce pathogens (PFRP):

(A) Windrow composting method. When using this method, the following conditions shall be met:

(i) Aerobic conditions shall be maintained within the windrow;

(ii) the waste shall attain a temperature of 55° C, 131° F, or greater for at least 15 days during the composting period; and

(iii) the windrow shall be turned a minimum of five times during the high temperature period;

(B) Aerated static pile composting method. When using this method, the waste shall be covered with six to 12 inches of insulating material and maintained at a temperature of 55° C, 131° F, or greater for a minimum of three consecutive days;

(C) Enclosed-vessel composting method. When using this method, the waste shall be maintained at a

temperature of 55° C, 131° F, or greater for a minimum of three consecutive days; or

(D) any other method approved by the department;

(9) record the following information:

(A) The temperature and moisture content of materials during the composting process, in accordance with the operating plan;

(B) the daily volume or weight of waste received;

(C) the source of waste;

(D) all laboratory analyses required by the permit; and

(E) the volume of recovered materials; and

(10) remove all finished compost within 18 months of the completion of the composting process.

(c) Facility closure. The owner or operator of each facility that composts solid waste shall perform the following:

(1) Notify the department, in writing, at least 60 days before closure;

(2) remove all material from the facility within 10 days of ceasing operation; and

(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with solid waste.

(d) Registration. Each owner or operator of a facility that composts solid waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.

(e) Permit applications. The owner or operator of each facility that composts solid waste and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:

(1) Facility design plan. The facility design plan shall contain the following items:

(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;

(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;

(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;

(D) plan and profile views of the facility indicating the following features:

(i) Roads;

(ii) the existing and final grades and contours;

(iii) storm water control;

(iv) buildings and equipment to be installed;

(v) utilities;

(vi) access control; and

(vii) all other structures;

(E) information on the permeability of the floor structure; and

(F) a flow diagram of the proposed processing steps involved in recovering recyclable materials and mixed organic material from solid waste, including a total mass balance.

(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;

(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;

(C) the sources of waste to be received;

(D) the methods to control traffic and to expedite unloading;

(E) the methods for measuring incoming waste;

(F) the methods to control the types of waste received;

(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for noncompostable wastes;

(I) the method of composting;

(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer's performance standards. The proposed equipment shall be compatible with the proposed process and throughput;

(K) a description of any additives used in the process;

(L) the methods for managing biological conditions;

(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(N) the proposed end use of compost;

(O) the methods to minimize, manage, and monitor odors;

(P) disease vector, dust, litter, and noise control measures;

(Q) leachate and national pollutant discharge elimination system storm water control measures;

(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;

(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and

(T) a fire protection and control plan.

(3) Closure plan. The closure plan shall include the following information:

(A) The steps necessary to close the facility;

(B) the final surface contours; and

(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-26. Revoked. (Authorized by and implementing K.S.A. 1983 Supp. 65-3406; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked June 4, 1999.)

28-29-27. Medical services waste.

(a) "Medical services waste" means those solid waste materials which are potentially capable of causing disease or injury and which are generated in connection with human or animal care through inpatient and outpatient services. Medical services waste shall not include any solid waste which has been classified by the secretary as a hazardous waste under K.S.A. 1982 Supp. 65-3431 and any amendments thereto, or that is radioactive treatment material licensed under K.S.A. 1982 Supp. 48-1607 and regulations adopted under that statute.

(b) Segregation. All medical services waste shall be segregated from other solid wastes at the point of origin.

(c) Storage. All medical services waste shall be stored in a manner and in a container that will prevent the transmission of disease or the causing of injury. Hypodermic needles and syringes, scalpel blades, suture needles, or other sharp objects shall be stored only in a rigid, puncture-resistant container that has been closed to prevent the escape of any material, including liquids or aerosols. All reusable containers used to store infectious waste shall be cleaned and disinfected before each use.

(d) Collection. Medical services wastes shall be collected at least daily from the point of origin for transport to a storage or disposal area or a processing facility. Personnel shall take precautions to prevent accidental contact with the waste during transfer.

(e) Transportation. All medical services wastes transported off-site shall be transported in a manner which will prevent the spread of disease or the causing of injury to persons.

(1) The waste transporter or disposal firm shall be notified of the types of waste.

(2) Containers of medical services waste transported off-site shall be labeled or color coded in accordance with 29 CFR 1910.1030(g)(1)(i), as in effect on July 1, 1996.

(f) Processing. In all processing of medical services waste, dispersal of aerosols and liquids shall be prevented through the use of proper coverings, seals, and ventilation. Personnel shall be protected against contact with the waste through the use of protective clothing and equipment. Medical services waste that has been processed may be combined with other solid waste. Where feasible, all medical services wastes shall be processed before transportation off-site by using either of the following methods:

(1) Sterilizing infectious wastes by autoclaving or chemical treatment, to destroy the disease- transmission potential; or

(2) grinding, melting, or pulverizing sharp objects to

destroy their injury producing potential.

(g) Disposal. Medical services waste shall be disposed of in a manner which minimizes the risk to health, safety, or the environment. The following shall be considered acceptable disposal methods:

(1) Discharge of liquids to a sanitary sewer which is connected to a secondary sewage treatment plant;

(2) incineration of combustible solids, followed by disposal of the ash in a sanitary landfill;

(3) disposal in a hazardous waste disposal facility which has a permit issued under K.A.R. 28-31-9; or

(4) disposal in a sanitary landfill in accordance with the provisions of K.A.R. 28-29-109. (Authorized by and implementing K.S.A. 1996 Supp. 65-3406, as amended by L. 1997,Ch. 139, Sec. 1; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; effective May 1, 1984; amended July 10, 1998.)

Part 3. Standards for Waste Tire Management

28-29-28. Definitions. For the purposes of these regulations, the following terms shall be defined as follows.

(a) "Contaminated waste tire" means a waste tire that is recovered in a project to abate a waste tire accumulation and contains, or is covered with, dirt, mud, sludge, or other natural substance in an amount estimated to be equal to or greater than 50% of the combined volume of the waste tire and contaminant. The determination that a waste tire is a contaminated waste tire shall be approved by the department.

(b) "Financial assurance" means a bond or other instrument that meets these requirements:

(1) complies with the requirements of K.S.A. 1996 Supp. 65-3407, subsection (h), and amendments;

(2) is approved by the department; and

(3) is issued for the purpose of paying all costs incurred by the state to process the permittee's waste tires or to dispose of the waste tires or processed waste tires if the permittee ceases business or fails to comply with this act.

(c) "Passenger tire equivalent" means 20 lbs. of tires or tire-derived products.

(d) "Retreader" means a person engaged in the business of recapping tire casings to produce recapped tires for sale to the public.

(e) "Rick" means to stack tires securely by overlapping so that the center of a tire is offset from the center of the tire below it.

(f) "Tire-derived products" means any usable materials produced from the processing of a waste tire.

(g) "Tire monofill" means a permitted solid waste landfill or landfill cell in which only processed waste tires are placed. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-28a. Establishing value of used tires.

(a) Used tires at a waste tire collection center shall be considered to have value if the owner of the used tires demonstrates to the department, through sales and inventory records, that the used tires are being sold at a rate equal to or greater than 75% of the daily used tire inventory per year.

(b) Each owner of used tires at a waste tire collection center shall choose one of the following methods to determine the daily used tire inventory.

(1) The owner of the used tires shall count the used tires on the day of inspection by the department and shall use that number as the daily used tire inventory for the purpose of establishing the value of the used tires.

(2) The owner of the used tires shall inventory all the used tires at the waste tire collection center at least once every month and shall use the average (mean) of these monthly inventories to calculate the daily used tire inventory for the purpose of establishing the value of the used tires. The owner of the used tires shall maintain a record of each monthly inventory for at least 12 months after the monthly inventory and shall provide the department with the monthly inventory records on request.

(c) Each owner of used tires at a waste tire collection center shall maintain used tire sales records for at least 12 months after the sale and shall provide the department with the sales records on request.

(d) Any owner of used tires at a waste tire collection center who has fewer than 12 months of sales

records available may use the following equation to calculate the sales rate, in terms of percent of the daily used tire inventory sold per year, as described in subsection (a) of this regulation:

"x" means the number of months for which sales records are available. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective September 12, 1997.)

28-29-29. Waste tire processing and disposal standards.

(a) Any person may dispose of waste tires, if the waste tires meet any of the following conditions:

(1) are processed in accordance with the standards in subsection (b) of this regulation and are disposed of in a tire monofill;

(2) are processed in accordance with subsection (b), except paragraph (b)(6), and are deposited in a municipal landfill before July 1, 1999;

(3) are contaminated waste tires and are disposed of in a municipal landfill or tire monofill;

(4) are used in their original state as part of a proven and approved leachate collection system in a landfill; or

(5) are cut into sufficiently small parts and used as alternate daily cover material for a landfill.

(b) Processing of waste tires for disposal as set forth in paragraphs (a)(1) and (a)(2) shall be accomplished by any of the following means:

(1) shredding;

(2) cutting in half circumferentially;

(3) cutting into at least four parts, with no part being greater than 1/3 of the original tire size;

(4) chipping;

(5) crumbing;

(6) baling in a manner that reduces the volume of the waste tires by at least 50%; or

(7) an equivalent volume reduction process that has received prior approval, in writing, from the department.

(c) Any person may process waste tires by burning, incineration, or other combustion process, including use as an alternative fuel, if the person meets these requirements:

(1) obtains a waste tire processor permit from the department;

(2) conducts the burning, incineration, or other combustion process in compliance with the Kansas air quality act, K.S.A. 1996 Supp. 65-3001, *et seq.* and

$$\left(\frac{(\textit{number of used tires sold within x months}) \left(\frac{12}{x} \right)}{\textit{daily used tire inventory}} \right) 100 \text{ ' } \%.$$

its implementing regulations at K.A.R. 28-19-7 *et seq.* and amendments; and

(3) disposes of all residue from the burning, incineration, or other combustion process at a landfill permitted for disposal of the residue. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424a; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-29a. Beneficial use of waste tires.

(a) Waste tires shall be considered by the department to be of beneficial use if both of these conditions are met:

(1) The use of the waste tires will have no adverse environmental effects.

(2) The waste tires are used for any of the following purposes:

(A) bumpers for boat docks or boats;

(B) playground equipment;

(C) silo covers;

(D) traffic control;

(E) feed bunks;

(F) water tanks; or

(G) any other use approved in writing by the department.

(b) The owner of the waste tires shall manage the waste tires in a manner that meets these requirements:

(1) controls mosquitos and rodents; and

(2) minimizes the risk and impact of fire.

(c) All waste tires that have ceased to be of beneficial use shall be managed in accordance with the standards set forth in K.A.R. 28-29-31. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective September 12, 1997.)

28-29-30. Waste tire processing facility, waste tire collection center, and mobile waste tire processor permit required.

(a) Each person required to obtain a waste tire processing facility permit, a waste tire collection center permit, or a mobile waste tire processor permit, as set forth in K.S.A. 1996 Supp. 65-3424b, shall submit a permit application to the department. Each application shall be submitted on forms prepared by the department.

(b) Permit applications for waste tire processing facilities, waste tire collection centers, or mobile waste tire processors shall be submitted to the department no fewer than 90 days before operations begin.

(c) Each waste tire processing facility or collection center permit application shall include the following:

(1) proof of compliance with zoning requirements;

(2) a description of the land use within a one-half mile radius of the facility, identifying all buildings and surface waters;

(3) the following maps:

(A) a site location map showing section, township, range, and site boundaries;

(B) a site layout drawing, showing the size and location of all pertinent artificial and natural features of the site, including roads, fire lanes, ditches, berms, waste tire storage areas, structures, wetlands, floodways, and surface waters; and

(C) a topographic map using a scale of no less than one inch equals 2,000 feet, with five-foot contour intervals on 7.5 minute series showing site boundaries, if required by the department;

(4) an operations plan for the processing facility or collection center, which includes the following:

(A) the estimated maximum number of waste passenger tire equivalents to be stored at the site on any given day;

(B) the procedures that the facility proposes to use to meet the mosquito and rodent control requirements of K.A.R. 28-29-31, paragraphs (c)(9) through (11);

(C) for waste tire collection centers, the proposed methods and schedule for storage before transportation, recycling, end use, or disposal; and

(D) for waste tire processing facilities:

(i) proposed methods and schedule for processing or disposal of waste tires; and

(ii) the procedures that the facility proposes to use to meet the technical waste tire processing standards in K.A.R. 28-29-29, subsection (b), for waste tires currently stored on the site and waste tires to be accepted;

(5) a contingency plan to minimize damage from fire or other emergencies at the site, which shall include procedures to be followed by facility personnel and measures to be taken to minimize the occurrence or spread of fires;

(6) a financial assurance instrument issued in favor of the department, in an amount acceptable to the department in compliance with both of these requirements:

(A) The permittee shall base the amount of financial assurance on the estimated cost of removing and disposing of the maximum number of waste passenger tire equivalents and the maximum amount of tire-derived product allowed by the facility permit to be stored on any given day.

(B) Each permittee shall notify the department, in writing, of the proposed cancellation of each required financial assurance instrument 30 days before cancellation.

(7) proof that the applicant owns or has a long-term lease of the site;

(8) a closure plan that shall include the following information:

(A) when or under what circumstances the site will close;

(B) how all waste tires and tire-derived products will be removed from the site or otherwise properly disposed of upon closure;

(C) a schedule for the applicable closure procedures, including the time period for completing the closure procedures; and

(D) a plan for site rehabilitation, if required by the department;

(9) all other information required by the department; and

(10) the application fee or fees as listed below:

(A) $250 for waste tire processing facilities;and

(B) $100 for waste tire collection centers.

(d) Each application for a mobile waste tire processor permit shall include the following:

(1) a description of all equipment to be used in the mobile waste tire processing operation;

(2) all other information requested on the permit application form; and

(3) a financial assurance instrument issued in favor of the department in an amount of $1,000.00. Each permittee shall notify the department, in writing, of the proposed cancellation of each required financial assurance instrument 30 days before cancellation; and

(4) an application fee of $250.

(e) Each waste tire processing facility, collection center, and mobile waste tire processor permit shall be issued for a one-year period.

(f) Any waste tire processing facility, collection center, or mobile waste tire processor permittee may apply to the department for permit renewal.

(1) Each permit renewal application shall be submitted to the department at least 30 days before the permit expiration date.

(2) Each renewal application shall be submitted on forms provided by the department and shall include the following:

(A) all information required by the department; and

(B) a permit renewal fee as indicated below:

(i) $100 for waste tire processing facilities;

(ii) $50 for waste tire collection centers; or

(iii) $100 for mobile waste tire processors.

(g) Any waste tire processing facility, collection center, or mobile waste tire processor permittee may request from the department a permit modification to modify the operations authorized in an unexpired permit. A permit modification request shall include all information required by the department. The procedure for modifying permits contained in K.A.R. 28-29-8 shall apply.

(h) Notice of plans to transfer ownership of any facility or business permitted under these regulations shall be reported to the department no fewer than 60 days before the transfer. Permits are issued only for the persons and premises or business named in the permit. Permits shall not be transferable or assignable. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-31. Standards for waste tire processing facilities, waste tire collection centers, and mobile waste tire processors.

(a) Outdoor accumulations of waste tires. Management standards for outdoor accumulations of waste tires shall not apply to waste tires stored in trailers or covered containers.

(b) Outdoor accumulations of more than 500 used tires, 500 waste tires, or 500 used and waste tires that have been or will be stored for 30 days or more. The owner of the tires shall meet the following requirements:

(1) locate the tire accumulation outside all wetlands and all 10-year floodplains;

(2) store the tires by one of these means:

(A) by ricking;

(B) on racks; or

(C) on tread;

(3) limit the size of the accumulation to less than the following dimensions:

(A) 50 feet in width;

(B) 5,000 square feet in area; and

(C) ten feet in height, unless the tires are stored in racks or on tread;

(4) operate and maintain the outdoor tire accumulation in a manner that controls mosquitoes and rodents ;

(5) between March 1 and November 1 of each calendar year:

(A) drain the waste tires of water on the day of generation or receipt and keep them dry by any of these methods:

(i) covering the waste tires with material impermeable to water; or

(ii) draining or otherwise managing the waste tires in order to remove water within 24 hours after each precipitation event; or

(B) drain the waste tires of water on the day of

generation or receipt and process the waste tires within 30 days; or

(C) drain the waste tires of water on the day of generation or receipt and treat the waste tires within 30 days, with a pesticide appropriate to prevent the development of mosquito larvae and pupae, and treat the waste tires again as often as necessary to prevent this development, taking into account the effective life of the pesticide utilized; or

(D) treat the waste tires on the day of generation or receipt with a pesticide appropriate to prevent the development of mosquito larvae and pupae and treat the waste tires again as often as necessary to prevent such development, taking into account the effective life of the pesticide utilized.

(6) apply pesticides in compliance with the Kansas pesticide act, K.S.A. 2-2438a et seq. If any restricted-use pesticide is specified as a part of a vector control program, the person applying the pesticide shall possess a commercial applicator's certificate as required by K.S.A. 2-2441a in the category of public health pest control in K.S.A. 2-2444a, paragraph (a)(7) and K.A.R. 4-13-11(g)(4).

(c) Outdoor accumulations of 1,500 or more used tires, waste tires, or used and waste tires. The owner of the tires shall meet these requirements:

(1) locate each outdoor tire accumulation at least 60 feet from each building;

(2) provide access to the tire accumulation for fire-fighting equipment by either of the following means:

(A) developing a 50-foot wide fire lane around the perimeter of each outdoor tire accumulation. The owner of the tires shall maintain the fire lane and an approach and access road to the outdoor tire accumulation area which is passable for any fire-fighting vehicle at all times; or

(B) demonstrating to the department that there is adequate access to the tire accumulation for fire fighting equipment. This demonstration may consist of certification provided by the local fire department;

(3) prohibit all activities involving the use of open flames, smoking materials, or other ignition sources within 25 feet of each outdoor tire accumulation;

(4) maintain all vegetation within 100 feet of each outdoor tire accumulation in a manner that minimizes fire hazard.

(d) Permitted facilities. The owner of each permitted waste tire collection center and each permitted solid waste processing facility shall perform the following:

(1) control access to the site by use of fences, gates, or other method approved by the department;

(2) post a sign at the entrance of the tire accumulation site stating the following information:

(A) permit number;

(B) operating hours;

(C) cost of disposal; and

(D) site rules; and

(3) have an attendant present at all times when the waste tire processing facility or waste tire collection center is open for business.

(e) Indoor waste tire accumulations. Each owner of waste tires stored indoors shall store the waste tires in compliance with the "Standard for Storage of Rubber Tires," NFPA 231D, 1994 edition, published by the National fire protection association, Quincy, Massachusetts.

(f) Tire-derived products.

(1) The owner of an accumulation of tire-derived products, in an amount equal to or greater than the amount derived from 500 passenger tire equivalents, shall store the tire-derived products according to the standards in paragraphs (b)(1), (b)(3), and (b)(4).

(2) The owner of an accumulation of tire-derived products, in an amount equal to or greater than the amount derived from 1,500 passenger tire equivalents, shall store the tire-derived products according to the standards in subsection (c).

(3) Each owner of an accumulation of tire-derived products shall meet at least one of these requirements:

(A) demonstrate to the department that the tire-derived products have an economic value by using sales and inventory records to prove that the tire-derived product is being sold at a rate equal to or greater than 75% of the daily tire-derived product inventory per year ;

(B) remove the products for further recycling, further processing, or disposal; or

(C) submit to the department a financial assurance instrument, issued in favor of the department, in an amount acceptable to the department.

(i) The owner of the tire-derived products shall base the amount of financial assurance on the estimated cost of removing and disposing of all tire-derived products that have been stored for more than six months.

(ii) The owner of the tire-derived products shall notify the department, in writing, of the proposed cancellation of each required financial assurance instrument 30 days before cancellation.

(g) If pyrolytic oil from a tire fire is released into the environment, the owner of the tires or the tire-derived product shall remove the oil and contaminated soil in accordance with applicable rules of solid and hazardous waste governing the removal, transportation, and disposal of the material.

(h) Additional requirements. Additional requirements for any individual waste tire accumulation site or tire-derived product accumulation site that are reasonably necessary to protect the public health or the environment may be imposed by the department.

(i) Closure of waste tire processing facilities and waste tire collection centers.

(1) The owner or operator of a waste tire processing facility or waste tire collection center shall cease to accept waste tires and shall close the waste tire processing facility or waste tire collection center in compliance with these regulations and, if the site is permitted, with any special closure conditions established in the facility permit, if any of these conditions is met:

(A) The owner or operator declares the site closed.

(B) A department order to cease operations is issued.

(C) A permitted site meets any of these conditions:

(i) A permit compliance schedule specifying closure is to begin.

(ii) The owner fails to renew the permit.

(iii) The permit is revoked.

(2) When a waste tire processing facility or waste tire collection center closes, the owner shall perform the following:

(A) remove all waste tires and tire-derived products to a waste tire collection center, waste tire processing facility, solid waste disposal site authorized to accept waste tires, or other facility approved by the department;

(B) remove all solid waste to a permitted solid waste disposal site; and

(C) for permitted waste tire processing facilities and permitted waste tire collection centers, meet these requirements:

(i) close public access to the waste tire site for tire storage;

(ii) post a notice at the site entrance indicating to the public that the site is closed and, if the site had accepted waste tires from the public, indicating the nearest site where waste tires can be lawfully deposited;

(iii) notify the department and local government having jurisdiction over the site of the closing of the permitted waste tire processing facility or waste tire collection center; and

(iv) submit notification to the department that the closure is complete.

(3) All financial assurance not needed for the closure or for other purposes under this subsection shall be released to the permittee by the department.

(j) Reporting requirements for permitted mobile waste tire processors. Not later than the 15th of each month, each permitted mobile waste tire processor shall submit to the department, in writing, a report covering the previous month. Each report shall be signed by the permittee and shall indicate the following information:

(1) each location at which waste tires were processed;

(2) the owner or owners of the waste tires that were processed;

(3) the number of waste tires that were processed at each location;

(4) the dates of arrival at and departure from each location; and

(5) all problems of environmental concern that occurred in connection with the tire processing.

(k) Annual reports. Each waste tire processing facility or collection center permittee shall prepare and

file an annual operations report with the department, on a form provided by the department, on or before September 1 of each year, and shall provide information on activities from July 1 of the preceding year to June 30 of the current year.

(1) The permittee shall maintain a copy of each report at the facility or business for a period of not less than three years after the report is submitted to the department.

(2) Each report for a waste tire processing facility or waste tire collection center shall meet these requirements:

(A) include the total quantity of waste tires and tire-derived product at the facility and the quantity added and removed since the previous report;

(B) identify each location to which waste tires and tire-derived product have been taken;

(C) identify the quantity of waste tires and tire-derived product transported;

(D) identify any environmental problems, fires, or significant changes or progress toward the ultimate disposal of or use of waste tires received or located at the facility; and

(E) identify all pesticides and quantities used during the reporting period.

(l) Departmental access to property and records. The owner or operator of each facility or business permitted under these regulations shall allow duly authorized representatives of the department access to both property and records pertaining to the facility or business in order to complete inspections in accordance with the procedures in K.A.R. 28-29-16 and to implement the provisions of these regulations. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-32. Waste tire transporter permit required.

(a) Each person required to obtain a waste tire transporter permit, as set forth in K.S.A. 1996 Supp. 65-3424b, shall submit to the department an application for a waste tire transporter permit. Each application shall be submitted on forms prepared by the department.

(b) Each application shall include the following:

(1) information on the locations where the waste tires will be transported for storage, processing, or disposal;

(2) an estimate of the number of tires that will be transported each month;

(3) all other information required by the department;

(4) a $100 nonrefundable application fee; and

(5) a financial assurance instrument issued in favor of the department.

(A) The amount of financial assurance shall be based on the average number of passenger tire equivalents (PTEs) transported per month by the permittee, using the following table:

(PTEs) transported	Financial Assurance
0-1,000	$1,000.00
1,001-10,000	$5,000.00
more than 10,000	$10,000.00.

(B) Each permittee shall notify the department, in writing, of the proposed cancellation of each financial assurance instrument 30 days prior to cancellation.

(c) Each waste tire transporter permit shall be issued for a one-year period.

(d) Any permitted waste tire transporter may apply to the department for permit renewal.

(1) Each permit renewal application shall be submitted to the department no fewer than 30 days before the permit expiration date.

(2) Each permit renewal application shall be submitted on a form provided by the department and shall include the following:

(A) all information required by the department; and

(B) a permit renewal fee of $50.

(e) Any corporation that has more than one separate business location may submit one waste tire transporter permit application that provides for services to all the locations.

(f) If a waste tire transporter permit is not renewed, or is revoked or suspended, the former permittee shall immediately remove all waste tire transporter permits from its vehicles. The former permittee shall surrender the permit and notify the department in writing, within

14 days of revocation, suspension, or the renewal date, that all department waste tire transporter permits have been removed from all vehicles. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-33. Waste tire transporter standards.

(a) Each person required to obtain a waste tire transporter permit shall perform the following:

(1) display a current waste tire transporter permit issued by the department in each vehicle that transports waste tires; and

(2) maintain financial assurance as described in K.A.R. 28-29-32, paragraph (b)(5).

(b) Each waste tire transporter permittee shall record and maintain for three years the following information regarding activities for each month of operation:

(1) the number of waste tires collected;

(2) the name and location from which the waste tires were collected; and

(3) the name and location at which the waste tires were deposited.

(c) Each waste tire transporter permittee shall submit to the department an annual report on a form provided by the department that summarizes the information collected under subsection (b). This report shall be submitted to the department on or before September 1 of each year and shall provide information on activities from July 1 of the preceding year to June 30 of the current year.

(d) Each waste tire transporter who engages in the transportation of waste tires in Kansas, from Kansas to other states or countries, or from other states or countries to Kansas, shall comply with all of the requirements for waste tire transporters contained in these regulations. (Authorized by K.S.A. 65-3424h; implementing K.S.A. 1996 Supp. 65-3424b; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; amended September 12, 1997.)

28-29-34 to 28-29-36. Revoked. (Authorized by K.S.A. 1991 Supp. 65-3424h; implementing K.S.A. 1991 Supp. 65-3424f; effective, T-28-4-27-92, April 27, 1992; effective June 8, 1992; revoked September 12, 1997.)

Part 4. Standards for Management of Hazardous Wastes

28-29-37 to 28-29-44. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-45. Revoked. (Authorized by K.S.A. 65-3406, 65-3407; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-46. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked E-82-20, Nov.4, 1981; revoked May 1, 1982.)

28-29-47. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-48 and 28-29-49. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended E-82-8, April 10,1981, revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-50. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-51 to 28-29-53. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 19981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-54 to 28-29-56. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked, E-82-8, April 10, 1981; revoked May 1, 1982.)

28-29-57 to 28-29-63. Revoked. (Authorized by K.S.A. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; amended, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-64. Revoked. (Authorized by K.S.A. 65-3406; effective, E-82-8, April 10, 1981; revoked, E-82-20, Nov 4, 1981.)

28-29-65. Revoked. (Authorized by K.S.A. 65-3406; effective, E-82-8, April 10, 1981; revoked, E-82-20, Nov. 4, 1981; revoked May 1, 1982.)

28-29-66 to 28-29-74. Reserved.

Part 5. Solid Waste Management Plans

28-29-75. General Provisions. An official solid waste management plan shall be prepared and adopted by each county and each city which elects to prepare and adopt its own plan and shall be submitted by and for each county and city in accordance with K.S.A. 1978 Supp. 65-3405 and these regulations. All solid waste management plans shall be submitted to the department on or before June 30, 1974. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-76. Solid Waste Management Committee. Each county shall have a solid waste management committee. The names of the committee members shall be transmitted to the department as soon as the committee is formed in accordance with the provisions of K.S.A. 1978 Supp. 65-3405.

(1) Duties of solid waste management committee. The committee shall be responsible for preparation of the solid waste management plan and shall submit it to the board of county commissioners for adoption along with all supporting information.

(2) Assistance for the committee. The board of county commissioners may employ personnel, contract with engineers, planners and other consultants, and provide such other funds as it may deem necessary to assist the committee in preparing the solid waste management plan.

(3) Solid waste management planning committee reports. The board of county commissioners shall prepare and submit to the department an annual progress report of the solid waste management committee's activities. The report shall be submitted by July 1, of a given year. When state or federal funds are used by the committee for solid waste planning or demonstration, the department may require reporting at more frequent intervals. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-77. Adoption of the plan. Upon completion, all county solid waste management plans shall be submitted to the county commissioners of each county affected by the plan for approval; and all city solid waste management plans shall be submitted to the governing body of the city for approval. Prior to approving any city or county solid waste management plan, the governing body of said city or county shall hold a public hearing on the plan. A notice of such public hearing, giving the place and time of the hearing shall be published at least once in the official newspaper of the county or city. The hearing shall be held not less than fifteen (15) days or more than thirty (30) days after publication of the notice.

At the conclusion of the public hearing, the board of county commissioners or the governing body of the city, in the case of a city plan, may revise or amend the plan prior to adopting it. The plan shall be adopted by enactment of an appropriate resolution by the board of county commissioners in the case of a county plan and by the city governing body in the case of a city plan. (Authorized by K.S.A. 1978 Supp. 5403406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-78. Exclusion from county solid waste management plan. Any city which elects to exclude itself from the county solid waste management plan and submit its own plan shall file notice in writing of its intention to prepare and submit such solid waste management plan with the board of county commissioners before June 1, 1972. Any city having its own solid waste plan may petition the board of county commissioners to revise the county solid waste plan to include said city in the plan and provide the city with those solid waste management services furnished to other residents of the county. Said revision shall be submitted to the department for approval. After June 1, 1972 no city may elect to exclude itself from the county solid waste management plan and prepare its own plan without the consent of the board of county commissioners and the approval of said plan by the department. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-79. Submission of joint plans. Two (2) or more counties or a single county and one (1) or more cities within an adjacent county or counties may submit jointly an official solid waste management plan which may be prepared by one (1) city or county or an authority designated to prepare and submit such plan on behalf of all participating counties and cities, if such joint official solid waste management plan is adopted by each county and city sponsoring the joint plan and certification of such adoption as provided for in regulation K.A.R. 28-29-77 accompanies the official plan submitted to the department for approval. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-80. Plan contents. The official adopted solid waste management plan shall include all information required by K.S.A. 1978 Supp. 65-3405 and shall provide for a solid waste management system which will:

(a) Provide for the removal of solid waste from the on-premise storage facilities as provided by these regulations and the locally adopted solid waste management plan.

(b) Provide an approved solid waste site or facility which will be open to receive solid waste at least one (1) day per week.

(c) Provide for the orderly and systematic elimination of nuisances and pollution sources associated with improper storage, collection, transportation, processing, and disposal of solid wastes.

The plan shall include such text, maps, and analyses as are required to adequately describe the following:

(1) The comprehensive solid waste plan for storage, collection, transportation, processing, and disposal of solid wastes for the study area for a ten (10) year period. The plan shall identify all sources of solid wastes and other considerations that have a bearing on the most feasible and economical collection, transportation, processing, storage, and disposal techniques and locations of present and future collection, transportation, processing, and disposal sites. Maximum use shall be made of available information from federal, state, and local sources concerning present and projected population and densities; present and future industries; utilities; solid waste collection, transportation, processing, and disposal facilities; present and anticipated land, air, and water usages; present and future highway transportation and circulation patterns; present and projected sources of solid wastes; property assessments and road records; soil studies; geology; hydrology; comprehensive air pollution, sewerage, water resources, public water supply and other related comprehensive studies; and local and regional land-use and development plans.

(2) Local provisions for regulation of storage, collection, transportation, disposal, and other solid waste management activities.

(3) Deficiencies and community problems associated with the existing solid waste storage, collection, transportation, processing and disposal program.

(4) Recommended procedures for the immediate and long-term management of the following special wastes: brush, trees, demolition wastes, bulky wastes,

industrial wastes, agricultural wastes, junked automobiles, and other wastes which may require special handling, transportation, processing, or disposal.

(5) Considerations affecting the feasibility of recycling of solid wastes in the selection of each alternative solid waste management system.

(6) The plan selected from the various alternative proposals for development and implementation. Justification for the selected plan shall be included in the text.

(7) A timetable for the completion of all necessary steps required for the implementation of the recommended plan.

(8) An outline of the action required by each individual unit of government involved.

(9) A sound method for financing each element of the proposed plan based on cost estimates. Revenue financing, general obligation financing, and other reasonable methods may be analyzed individually and in combination. The methods used for apportioning the annual charges or estimated tax rates shall be described. The financial analysis shall be developed in sufficient detail to provide the counties with an adequate basis for financing the program within the study area.

(10) Procedures for periodic updating of the plan to take advantage of any new techniques in solid waste management practices. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-81. Approval. No official adopted solid waste management plan shall be approved by the department unless it contains the information required by K.S.A. 1978 Supp. 65-3405 and by these regulations. All information regarding status of current solid waste management practices shall be collected, summarized if necessary, and reported to the department on forms furnished by the department. The required solid waste inventory data shall be filed with the department at least sixty (60) calendar days prior to submission of the official plan.

In evaluating plans for approval, the department shall take into consideration the following factors:

(a) Compatibility of the solid waste management plan with the existing governmental structure of the county. The plan shall take into consideration the area's ability to finance the service.

(b) Clarity of allocation of the responsibility for implementing each element of the plan.

(c) Workability of the technology proposed in the plan.

(d) The reasonableness of the cost. The action plan shall attempt to provide the desired level of benefits to the people at a reasonable cost.

(e) Flexibility of the plan to respond to seasonal changes in loadings, changes in objectives such as shift from disposal to recycling of solid wastes, or changes in technology and program.

In the event that an official plan is disapproved by the department, written notice together with a statement of reason for such disapproval shall be sent to each county and city included in such official plan. Any county or city or combination thereof shall upon submitting a written request within ten (10) days after receipt of notice of disapproval, be afforded a hearing before the board or its designate to set forth its views as to why the official plan should be approved. At such hearing, the county or city may present information and data in addition to those submitted with its solid waste management plan, revisions and amendments. Upon the basis of evidence presented at such hearing, the board shall within sixty (60) days after such hearing either affirm, modify, or revoke its disapproval of the official plan. (Authorized by K.S.A. 1978 Supp. 65-3406; effective Jan. 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-82. Amendment or revision. When the department determines that the official adopted solid waste management plan or any part is inadequate to the counties, county, or city to which it related because of changed or newly discovered facts, conditions or circumstances, the department may upon written notice require an amendment or revision of such official plan: that no such amendment or revision shall be required within one (1) year of the date of department approval of such official plan or the last revision or amendment thereof. (Authorized by K.S.A. 1978 Supp. 65-3406;

effective Jan 1, 1972; amended, E-79-22, Sept. 1, 1978; amended May 1, 1979.)

28-29-83. Revoked. (Authorized by K.S.A. 1978 Supp. 65-3406; effective, E-79-22, Sept. 1, 1978; effective May 1, 1979; revoked May 10, 1996.)

Part 6. Financial Requirements

28-29-84. Permit renewal; solid waste permit fees.

(a) General provisions. Each permit issued by the department for any solid waste disposal facility or area, processing facility, incinerator, transfer station, composting plant or area and reclamation facility may be renewed on or before the anniversary date of the permit each year in the following manner.

(1) Each solid waste facility operating in Kansas pursuant to a valid existing permit shall submit to the department, on or before the anniversary date of the permit, a report of the permitted activities on forms provided by the department.

(2) The annual permit renewal fee shall accompany the report. Action to approve the renewal of the permit shall not begin until such time as a properly completed report and the appropriate annual permit renewal fee are received by the department.

(b) Failure to submit. Failure to submit a complete annual report and the annual permit renewal fee on or before the anniversary date of the permit each year may subject the permit holder to denial, revocation, or suspension of the permit.

(c) Fee schedule. The fee for a permit to operate a solid waste disposal area or facility will be as follows.

(1) The fee for an application for a proposed facility for which no permit has previously been issued by the department, or for reapplication due to loss of the permit resulting from departmental action, such as revocation, denial or suspension shall be:

Incinerator	$5,000.00
Industrial solid waste disposal area	$3,000.00
Municipal solid waste disposal area	$5,000.00
Processing facility	$2,000.00
Reclamation facility	$2,000.00
Solid waste compost facility	$ 250.00
Transfer station	$1,000.00

(2) Each facility or disposal area operating pursuant to a valid, current permit issued by department shall be required to pay an annual permit renewal fee. The annual permit renewal fees shall be:

Incinerator	$1,000.00
Industrial solid waste disposal area	$1,000.00
Municipal solid waste disposal area	$2,000.00
Processing facility	$1,000.00
Reclamation facility	$1,000.00
Solid waste compost facility	$250.00
Transfer station	$500.00

(d) Construction and demolition landfills.

(1) The fee for an application for a proposed construction and demolition disposal facility for which no permit has previously been issued by the department or as otherwise set forth in these regulations shall be as follows:

(A) each facility whose permit application projects receipt of less than 1,000 tons annually: $250.00;

(B) each facility whose permit application projects receipt of more than 1,000 and less than 10,000 tons annually: $500.00; and

(C) each facility operating whose permit application projects receipt of more than 10,000 tons annually: $1,000.00.

(2) Each facility operating pursuant to a valid, current permit issued by the department shall be required to pay an annual permit renewal fee. The annual permit renewal fee shall be as follows:

(A) for each facility receiving less than 1,000 tons annually: $125.00;

(B) for each facility receiving more than 1,000 and less than 10,000 tons annually: $250.00; and

(C) for each facility receiving more than 10,000 tons annually: $500.00.

(3) Fees for each facility reapplying for a permit due to loss of the permit resulting from departmental action,

including revocation, denial or suspension shall be determined in accordance with paragraph (d)(1) of this regulation based on the tonnage received the 12 months prior to the revocation, denial or suspension of the permit.

(4) To determine the annual fee due, the construction and demolition disposal facility may determine the volume of waste received during the previous year and convert this volume to an equivalent weight basis using the following conversion factor: 1 cubic yard = 1,250 pounds.

(e) Multiple activities. Any person conducting more than one of the activities listed in K.A.R. 28-29-84(c)(1) at one location shall pay a single fee. This fee shall be in the amount specified for the activity having the highest fee of those conducted. (Authorized by K.S.A. 1993 Supp. 65-3406, as amended by L. 1994, Ch. 283, sec. 2; implementing K.S.A. 1993 Supp. 65-3407, as amended by L. 1994, Ch. 283, sec. 3; effective, T-28-3-15-93, March 15, 1993; effective May 17, 1993; amended Aug. 28, 1995.)

28-29-85. State solid waste tonnage fees.

(a) General provisions. The operator of each solid waste disposal area in Kansas shall pay to the department a tonnage fee for each ton or equivalent volume of solid waste received and disposed of at the facility during the preceding reporting period. The fee shall be paid each reporting period until the facility no longer receives waste and begins departmentally approved closure activities. Municipal solid waste disposal areas receiving 50,000 tons or more of solid waste annually shall file the reports required by subsection (b) of this regulation and pay their tonnage fee monthly, on or before the last day of the following month. Municipal solid waste disposal areas receiving less than 50,000 tons of solid waste annually, and all other solid waste disposal areas shall file reports and pay their tonnage fee quarterly, on or before the last day of April, July, October and January.

(b) Certification and late fees. The operator of each solid waste disposal area shall certify, on a form provided by the department, the amount, source and type of solid waste received, processed, recycled, and disposed of during the preceding reporting period. Any operator failing to remit the appropriate tonnage fee and submit the report within 45 days after each reporting period shall pay a late processing fee of one and one-half percent per month on the unpaid balance from the date the fee was due until paid.

(c) Determination of waste tonnages.

(1) Operator estimates. The operator of each municipal solid waste disposal area that receives 50,000 tons or more of solid waste annually shall use actual weight records. The operator of each municipal solid waste disposal area that receives less than 50,000 tons of solid waste annually shall, subject to department approval, use one of the following methods for determining the number of tons of waste disposed of at the solid waste disposal area.

(A) The operator may use actual weight records.

(B) The operator may use actual volume records based upon direct aerial and field survey techniques, using the conversion factor of 1,000 pounds per cubic yard less a department approved deduction for cover material.

(C) The operator may use actual volume records based upon daily logs which record the source, type and measurement or estimate of each load using the conversion factors as specified in subsection (d) of this regulation.

(D) The operator of a landfill serving one county or an identifiable population of less than 20,000 may use a per capita waste generation rate charge equivalent of .8 ton per person per year. This generation rate may only be used during calendar year 1993. This method may be used after December 31, 1993, only with specific departmental approval.

(2) Other disposal site estimates. All other solid waste disposal sites shall, subject to departmental approval, use the method provided in paragraph (c)(1)(A), (c)(1)(B) or (c)(1)(C) of this regulation.

(3) Departmental estimates. The department may estimate the number of tons received at a solid waste disposal area. The estimate may be based upon the number of tons received and reported for the previous reporting period, or any other recognized method.

(d) Payment calculation. The solid waste tonnage

fee of $1.50 per ton shall be calculated on department forms. If volume records are used, the following volume to weight factors shall be used to calculate tonnage unless the operator demonstrates to the department that a different conversion factor is appropriate.

Municipal Solid Waste (as delivered)	
Residential/commercial	
loose	325 pounds/cubic yard
compacted	650 pounds/cubic yard
Industrial general	330 pounds/cubic yard
liquids/sludges	8.3 pounds/gallon
Construction demolition	1,250 pounds/cubic yard

(e) Exemptions. The state solid waste tonnage fee shall not apply to non-hazardous waste that is received at a solid waste disposal area, and recycled, reclaimed or reused. Such items include scrap and composted wastes. (Authorized by K.S.A. 1993 Supp. 65-3406, as amended by L. 1994, Ch 283, sec. 2; implementing K.S.A. 1993 Supp. 65-3415b; effective, T-28-3-15-93, March 15, 1993; effective May 17, 1993; amended Aug. 28, 1995.)

28-29-98. Revoked. (Authorized by K.S.A. 1997 Supp. 65-3406; implementing K.S.A. 1997 Supp. 65-3401; effective, T-28-9-30-93, Sept. 30, 1993; effective Nov. 22, 1993; amended May 16, 1994; amended Aug. 22, 1994; amended April 9, 1996; amended April 9, 1997; amended July 24, 1998; revoked February 24, 2000.)

28-29-99. Revoked. (Authorized by K.S.A. 65-3406; amended by L. 1993, Ch. 274, Sec. 2; implementing K.S.A. 65-3401; effective, T-28-9-30-93, Sept. 30, 1993; effective Nov.22, 1993; revoked May 16, 1994; revoked Aug. 22, 1994.)

Part 7. Regulations for Location, Operation, Design, Groundwater Monitoring, and Closure/Post-closure of Municipal Solid Waste Landfills

28-29-100. Applicability.

(a) The provisions of K.A.R. 28-29-100 through K.A.R. 28-29-121 shall apply to all municipal landfills receiving waste on or after October 9, 1991. Facilities receiving waste after October 9, 1991, but that stop receiving waste before October 9, 1993 shall only be subject to the final cover requirements in K.A.R. 28-29-121.

(b) Each existing unit or lateral expansion receiving flood-related waste from federally-designated areas within the major disaster areas declared by the president during the summer, of 1993 pursuant to 42 U.S.C. 5121 *et seq.*, shall be designated by the director of the division of environment in accordance with the following:

(1) If it is determined by the director of the division of environment that a unit is needed to receive flood-related waste from a federally-designated disaster area, as specified in this regulation, that unit may continue to accept waste prior to April 9, 1994 without being subject to the requirements of K.A.R. 28-29-100 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation.

(2) Any unit that receives an extension in accordance with paragraph (b)(1) of this regulation may continue to accept waste for a maximum of six additional months beyond April 9, 1994 without being subject to the requirements of K.A.R. 28-29-101 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation, if it is determined by the director of the division of environment that the unit is still needed to receive flood-related waste from a federally-designated disaster area as specified in this regulation.

(3) Any unit receiving an extension under paragraphs (b)(1) or (b)(2) of this regulation which accepts waste under any circumstances on or after October 9, 1994 shall be subject to K.A.R. 28-29-101 through K.A.R. 28-29-121.

(c) Any unit that meets the small landfill requirements of K.A.R. 28-29-103 may accept waste on or before October 9, 1997 without being subject to the requirements of K.A.R. 28-29-100 through K.A.R. 28-29-121, except as provided in subsection (a) of this regulation.

(d) Any portions of K.A.R. 28-29-101 through 28-29-121 which contain requirements different from

those contained in K.A.R. 28-29-23 shall supersede the requirements of K.A.R. 28-29-23. (Authorized by K.S.A. 1995 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994; amended Dec. 13, 1996.)

28-29-101. Definitions.

(a) Except as stated in this regulation, or unless a different meaning of a word or term is clear from the context, the definition of words or terms in this regulation shall be the same as that applied to the same words or terms in the solid waste management act, K.S.A. 65-3401 *et seq*.

(b) "Aquifer" means saturated soils and geologic materials that are sufficiently permeable to readily yield quantities of water to wells, springs, or streams under ordinary hydraulic gradients and whose boundaries can be identified and mapped from hydrogeologic data. This term shall include all hydraulically connected aquifers.

(c) "Department" means the Kansas department of health and environment.

(d) "Design period" means the operating life of the solid waste landfill facility plus the post-closure care period.

(e) "Detection monitoring system" means a network of "wells established to detect releases from a landfill unit.

(f) "Director" means the director of the division of environment, Kansas department of health and environment.

(g) "Disturbed areas" means those areas within a facility that have been physically altered during waste disposal operations or during the construction of any part of the facility.

(h) "Earth liners" means structures constructed from naturally occurring soil material that has been compacted to achieve a low permeability.

(i) "Existing unit" means a unit that is, completely constructed and receiving waste as of the appropriate date specified in K.A.R. 28-29-100.

(j) "Facility" means a site and all equipment and fixtures on a site used to treat, process, store or dispose of solid or special wastes. A facility consists of an entire solid or special waste treatment, storage or disposal operation. All structures used in connection with or to facilitate the waste disposal operation shall be considered a part of the facility. A facility may include, but is not limited to, one or more solid waste disposal units, buildings, treatment systems, processing and storage operations, and monitoring stations.

(k) "Gas collection system" means a system of wells, trenches, pipes and other related ancillary structures including manholes, compressor housings, and monitoring installations that collect and transport the gas produced in a municipal solid waste landfill to one or more gas processing points. The flow of gas through such a system may be produced by naturally occurring gas pressure gradients or may be aided by an induced draft generated by mechanical means.

(l) "Gas venting system" means a system of wells, trenches, pipes and other related structures that vents the gas produced in a municipal solid waste landfill to the atmosphere.

(m) "Geomembrane" means an essentially impermeable membrane used with foundation, soil, rock, earth, or any other geotechnical engineering-related material as an integral part of a human-made structure or system designed to limit the movement of liquid or gas in the system.

(n) "Geotextile" means any permeable textile used with foundation, soil, rock, earth or any other geotechnical engineering-related material as an integral part of a human-made structure or system designed to provide planar flow for drainage, or to serve as a cushion to protect geomembranes, or to provide structural support.

(o) "Land application unit" means an area where wastes are spread over or disced into land or otherwise applied so as to become incorporated into the soil.

(p) "Leachate" means liquid that has been or is in direct contact with a solid waste that has been deposited in a municipal solid waste landfill unit.

(q) "Lift" means an accumulation of waste that is compacted into a unit and over which cover material is placed.

(r) "Municipal solid waste landfill (MSWLF)" means a solid waste disposal area in which residential

waste is placed for disposal. A MSWLF also may receive other nonhazardous wastes, including commercial solid waste, sludge, and industrial solid waste.

(s) "National pollutant discharge elimination system (NPDES)" means the program for issuing, modifying, revoking and reissuing, terminating monitoring and enforcing permits and imposing and enforcing pretreatment requirements under the clean water act, 33 U.S.C. 1251, et seq. "NPDES permit" means a permit issued under the NPDES program.

(t) "New facility" or **"new unit"** means a MSWLF or a unit at a facility, in which one or more of the following conditions apply:

(1) it is a permitted or unpermitted MSWLF or unit that has not accepted any waste as of October 9, 1993; or

(2) it is an existing MSWLF or unit whose lateral boundaries are increased after the effective date specified in K.A.R. 28-29-100.

(u) "100-year, 24-hour precipitation event" means a precipitation event of 24-hour duration with a probable recurrence interval of once in 100 years.

(v) "Operating record" means a compilation or reports, plans, specifications, monitoring data, or other information required to be kept on site pursuant to these regulations.

(w) "Operator" means the person or persons responsible for the operation and maintenance of a solid waste disposal facility or part of a facility.

(x) "Owner" means the person or persons who own a facility or part of a facility.

(y) "Permit area" means the entire approved horizontal and vertical area occupied by a permitted solid waste disposal facility.

(z) "Person" means any individual, partnership, firm, trust, company, association, corporation, individual or individuals having controlling or majority interest in a corporation, institution, political subdivision, state agency, or federal department or agency.

(aa) "Point of compliance" means a specified horizontal distance in the downgradient direction from the edge of a MSWLF unit's planned design. The point of compliance shall be the point at which an owner or operator demonstrates compliance with the liner performance standard, if applicable, and with the groundwater protection standard.

(bb) "Professional engineer" means a person who has registered and obtained a license to practice engineering from the state board of technical professions pursuant to K.S.A. 74-7001, et seq.

(cc) "Land surveyor" means a person who has received a license to practice land surveying from the state board of technical professions pursuant to K.S.A. 747001, et seq.

(dd) "Publicly owned treatment works (POTW)" means a treatment works that is owned by the United States of America, the state of Kansas, or a unit of local government. This definition shall include any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastewater. It shall include sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant.

(ee) "Run-off" means water resulting from precipitation that flows overland from any part of a facility before it enters a defined stream channel or any portion of such overland flow that infiltrates into the ground before it reaches the stream channel.

(ff) "Run-on" means any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(gg) "Salvaging" means the controlled removal of reusable materials from solid waste.

(hh) "Scavenging" means the removal of materials from a solid waste management facility or unit that is not salvaging.

(ii) "Settlement" means subsidence caused by waste loading, changes in groundwater level, and chemical changes within the soil and adjacent operations involving excavation.

(jj) "Significant modifications" means substantial alterations, changes, additions, or deletions to a facility, facility operations, facility ownership, or facility financial status which occurred after permit issuance.

(kk) "Special waste" means any solid waste that, due to physical, chemical, or biological characteristics, may:

(1) present concerns regarding handling, owner or operator safety, management, or disposal; and

(2) require special management standards.

(ll) "Static safety factor" means the ratio between resisting forces or moments in a slope and the driving forces or moments that may cause a massive slope failure.

(mm) "Surface impoundment" means a natural topographic depression, a man-made excavation, or a diked area into which flowing wastes, such as liquid wastes or wastes containing free liquids, are placed. For the purposes of K.A.R. 28-29-100 through K.A.R. 28-29-121, a surface impoundment shall not be considered a landfill.

(nn) "25-year, 24-hour precipitation event" means a precipitation event of 24-hour duration with a probable recurrence interval of once in 25 years.

(oo) "Unit" means a contiguous area used for solid waste disposal.

(pp) "Uppermost aquifer" means the first aquifer likely to be impacted by contamination from the facility.

(1) This includes the migration pathway to that unit and extends to the first demonstrated aquiclude.

(2) This definition shall also include perched water tables, which are locally elevated watertables above a discontinuous low permeability layer within a relatively higher permeability layer.

(qq) "Vertical expansion" means an increase in the design capacity of an existing unit by raising the final elevation of the unit.

(rr) "Waste pile" means an area on which non-containerized masses. of solid, non-flowing wastes are placed for temporary storage. For the purposes of K.A.R. 28-29-100 through K.A.R. 28-29-121, a waste pile shall not be considered a landfill.

(ss) "Working face" means any part of a MSWLF where waste is being disposed. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-102. Location restrictions.

(a) Airport safety.

(1) Each owner or operator of a new MSWLF unit and existing MSWLF unit which is located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft, shall demonstrate to the department that the unit is designed and, operated so that the unit does not pose a bird hazard to aircraft.

(2) Each owner or operator proposing to site a new unit within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the federal aviation administration (FAA).

(3) The owner or operator shall place a copy of the demonstration in the operating record.

(4) For purposes of this subsection:

(A) "Airport" means public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

(B) "Bird hazard" means an increase in the likelihood of bird and aircraft collisions that may cause damage to the airdraft or injury to its occupants.

(b) Floodplains.

(1) Owners or operators of new MSWLF units and existing MSWLF units located in 100-year floodplains must demonstrate to the department that the unit will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purpose of this subsection:

(A) "Floodplain" means the lowland and relatively flat areas adjoining inland waters, including flood-prone areas that are inundated by the 100-year flood.

(B) "100-year flood" means a flood that has a 1% or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

(C) "Washout" means the carrying away of solid waste by waters of the base flood.

(c) Wetlands.

(1) New MSWLF units shall not be located in wetlands, unless the owner or operator demonstrates to the department that:

(A) there is no practicable alternative to the proposed MSWLF that does not also involve wetlands;

(B) the construction and operation of the unit will not:

(i) cause or contribute to violations of any applicable Kansas water quality standard;.

(ii) violate any applicable toxic effluent standard prohibition under section 307 of the clean water act, 33 U.S.C. 1317;

(iii) jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the endangered species act of 1973; and

(iv) violate any requirement under the marine protection, research, and sanctuaries act of 1972 for the protection of a marine sanctuary;

(C) the unit will not cause or contribute to significant degradation of wetlands. The owner or operator shall demonstrate the integrity of the unit and its ability to protect ecological resources by addressing the following factors:

(i) erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the unit;

(ii) erosion, stability, and migration potential, of dredged and fill materials used to support the unit;

(iii) the volume and chemical nature of the waste managed in the unit;

(iv) impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste;

(v) the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and

(vi) any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected;

(D) steps have been taken to attempt to achieve no net loss of wetlands, as defined by acreage and function, by first avoiding impacts to wetlands to the maximum extent practicable, then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions, including restoration of existing degraded wetlands or creation of man-made wetlands; and

(E) sufficient information is available to make a reasonable determination with respect to these demonstrations.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purposes of this subsection, "wetlands" means those areas that meet the definition provided in the "Corps of Engineers Westland Delineation Manual Technical Report Y-87-1," as published January, 1987 by the Department of the Army Waterways Experiment Station, Corps of Engineers.

(d) Fault areas.

(1) New MSWLF units shall not be located within 60 meters (200 feet) of a fault that has had displacement in holocene time unless the owner or operator demonstrates to the department that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the unit and will be protective of human health and the environment.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For the purposes of this subsection:

(A) "Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.

(B) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

(C) "Holocene" means the most recent epoch of the quaternary period, extending from the end of the pleistocene epoch to the present.

(e) Seismic impact zones.

(1) New MSWLF units shall not be located in seismic impact zones, unless the owner or operator demonstrates to the department that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

(2) The owner or operator shall place a copy of the

demonstration in the operating record.

(3) For the purpose of this subsection the following definitions shall apply:

(A) "Seismic impact zone" means an area with a 10% or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years.

(B) "Maximum horizontal acceleration in lithified earth material" means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90% or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(C) "Lithified earth material" means all rock, including all naturally occurring and naturally formed aggregates, or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term shall not include human-made materials, including fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(f) Unstable areas.

(1) Owners or operators of new MSWLF units and existing units located in an unstable area shall demonstrate to the department that engineering measures have been incorporated into the unit's design to ensure that the integrity of the structural components of the MSWLF unit will not be disrupted. The owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

(A) on-site or local soil conditions that may result in significant differential settling;

(B) on-site or local geologic or geomorphologic features; and

(C) on-site or local human-made features or events both surface and subsurface.

(2) The owner or operator shall place a copy of the demonstration in the operating record.

(3) For purposes of this subsection:

(A) "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the MSWLF structural components responsible for preventing releases from a landfill. Unstable areas may include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

(B) "Structural components" means liners, leachate collection systems, final covers, run-on systems, run-off systems, and any other component used in the construction and operation of the MSWLF that is necessary for protection of human health and the environment.

(C) "Poor foundation conditions" means those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of an MSWLF unit.

(D) "Areas susceptible to mass movement" means those areas of influence including areas characterized as having an active or substantial possibility of mass movement, where the movement of earth material at, beneath, or adjacent to the MSWLF unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement may include:

(i) landslides;

(ii) avalanches;

(iii) debris slides and flows;

(iv) soil fluction;

(v) block sliding; and

(vi) rock fall.

(E) "Karst terrains" means areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains may include:

(i) sinkholes;

(ii) sinking streams;

(iii) caves;

(iv) large springs; and

(v) blind valleys.

(g) Closure of existing MSWLF units.

(1) Existing units that cannot make the demonstration pertaining to airports, floodplains, or

unstable areas, shall close by October 9, 1996, in accordance with K.A.R. 28-29-121 and conduct post-closure activities in accordance with K.A.R. 28-29-121.

(2) The deadline for closure required by subsection (g)(1) may be extended up to two years if the owner or operator demonstrates to the department that there is no:

(A) available alternative disposal capacity; and

(B) immediate threat to human health and the environment.

(h) Kansas historic preservation act. Each new MSWLF unit shall be located so as not to pose a threat of harm or destruction to the essential features of an irreplaceable historic or archaeological site that is listed pursuant to the Kansas historic preservation act, K.S.A. 75-2716 and 75-2724.

(i) Endangered species conservation act. Each new MSWLF unit shall be located so as not to:

(1) jeopardize the continued existence of any designated endangered species;

(2) result in the destruction or adverse modification of the critical habitat listed for such species; or

(3) cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the endangered species act 16 U.S.C. 1531 et seq., or Kansas non-game and endangered species conservation act, K.S.A. 32-957 et seq., and, K.S.A. 32-1009 et seq.

(j) Buffer zones.

(1) No part of a newly permitted MSWLF unit shall be located closer than 152 meters (500 feet) from an occupied dwelling, school, or hospital that was occupied on the date when the owner or operator first applied for a permit to develop the unit of the facility containing the unit, unless the owner of such dwelling, school, or hospital consents in writing.

(2) All newly permitted MSWLF units shall maintain a minimum 46 meters (150 feet) buffer from the edge of the planned MSWLF unit to the owner's or operator's property line.

(3) The owner or operator may petition the director for a reduction in the buffer zone distances, provided the county commission of the county in which the landfill is located approves the request.

(k) Navigable streams.

(1) A new MSWLF unit shall not be located within one-half mile of a navigable stream used for interstate commerce.

(2) For purposes of this subsection, "navigable stream" means any water defined as navigable water of the United States under 33 CFR Part 329 as in effect on July 1, 1993.

(3) The provisions of this subsection shall not apply to:

(A) lateral expansion onto land contiguous to a permitted MSWLF in operation on July 1, 1991; or

(B) renewal of an existing permit for a permitted MSWLF on July 1, 1991.

(l) Public drinking water supplies.

(1) No new MSWLF shall be located within one mile of a surface water intake source for a public water supply system.

(2) For purposes of this subsection:

(A) "Surface water" means any water defined under K.A.R. 28-15-11.

(B) "Public water supply system" means any system defined under K.A.R. 28-15-11. (Authorized by K.S.A.1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-103. Small landfills.

(a) Any owner or operator of a new or existing municipal landfill may request an exemption from the design requirements in K.A.R. 28-29-104, as amended, if these conditions are met:

(1) the MSWLF receives and disposes of less than 20 tons of municipal solid waste daily, based on an annual average;

(2) there is no evidence of groundwater contamination from the MSWLF;

(3) the MSWLF is in an area that annually receives less than or equal to 25 inches of precipitation; and

(4) the community or communities utilizing the MSWLF have no practicable waste management alternative.

(b) Each owner or operator requesting the small landfill exemption shall demonstrate compliance with the

conditions in subsection (a) by submitting the following documentation to the department for review and approval:

(1) actual records of past operations or estimates of the amount of solid waste disposed on a daily basis to demonstrate that the MSWLF meets the condition in paragraph (a)(1);

(2) site-specific data demonstrating that the MSWLF meets the condition in paragraph (a)(2);

(3) climatic data obtained for a minimum 30-year averaging period demonstrating that the MSWLF meets the condition in paragraph (a)(3); and

(4) one of the following statements to demonstrate that the MSWLF meets the condition in paragraph (a)(4):

(A) a statement containing data showing to the department that the closest MSWLF is more than 75 miles away; or

(B) written certification, from the board of county commissioners in the county where the landfill is located, that a landfill located less than 75 miles away is not a practicable alternative.

(c) The owner or operator of each small landfill meeting the exemption criteria shall comply with the location restrictions, the operating standards, the closure and post-closure standards, and the financial assurance standards for municipal solid waste landfills.

(1) Each "existing small landfill" for the purposes of K.A.R. 28-29-103, as amended, means any area permitted for municipal solid waste disposal on or before October 9, 1993 and any area permitted for municipal solid waste disposal through a permit amendment prior to October 9, 1997 and contiguous to the area permitted before October 9, 1993.

(2) Each "new small landfill" means any area not permitted for municipal solid waste disposal prior to October 9, 1993 or not incorporated into an existing permit by amendment prior to October 9, 1997.

(d) Each existing small landfill meeting the exemption criteria in subsection (a) and receiving waste on or after October 9, 1997 shall comply with subsection (f), (g) or (h) of this regulation in order to demonstrate that naturally occurring geological conditions provide sufficient protection against groundwater contamination.

(e) Each new small landfill or unit meeting the exemption criteria in subsection (a) shall comply with subsection (f) of this regulation and shall be constructed with the following:

(1) a liner consisting of the following:

(A) a minimum of two feet of compacted clay with a hydraulic conductivity of no more than 1×10^{-6} cm/sec; and

(B) a leachate collection system; or

(2) *in situ* material or an alternate, approved constructed liner meeting the demonstration standards for groundwater modeling prescribed in subsection (g) or the liner performance standard prescribed in subsection (h) of this regulation. Alternate constructed liners shall be considered for approval by the department when these conditions are met:

(A) the technology or material has been successfully utilized in at least one application similar to the proposed application;

(B) methods for ensuring quality control during the manufacture and construction of the liner can be implemented; and

(C) the owner or operator can provide documentation in the operating record that the provisions set forth in this subsection have been satisfied.

(f) Groundwater monitoring, sampling, and analysis.

(1) The owner or operator of each landfill meeting the exemption criteria shall install a groundwater monitoring system developed by a qualified groundwater scientist as defined in K.A.R. 28-29-111 and approved by the department. The groundwater monitoring system shall fulfill these requirements:

(A) have monitoring wells located on the property permitted for solid waste disposal, and yield groundwater samples from the uppermost aquifer representing the quality of groundwater passing the point of compliance as defined by K.A.R. 28-29-101(aa), as amended;

(B) consist of a sufficient number of wells to accurately determine the groundwater flow gradient, including a minimum of two down gradient wells;

(C) have monitoring wells located at a distance no greater than 150 meters or 492 feet from the planned

edge of the unit; and

(D) have monitoring wells located at least 50 feet from the property boundary for all new small landfills. The "upper most aquifer," for the purposes of K.A.R. 28-29-103, as amended, means the first saturated zone able to fully recharge within 24 hours after one well volume is removed.

(2) The owner or operator of each small landfill meeting the exemption criteria shall maintain and operate the monitoring system in accordance with K.A.R. 28-29-111, paragraphs (f)(2) and (f)(3), as amended.

(3) The owner or operator of each small landfill meeting the exemption criteria shall perform the following:

(A) sample each down gradient monitoring well semiannually during the active site life and post-closure period to ensure that contaminate levels are within the parameters listed in Table 1 of this regulation;

(B) measure the water depth in all monitoring wells during the semiannual sampling to verify the groundwater flow gradient; and

(C) submit the results of analytical testing and verification of the groundwater flow gradient to the department within 45 days of receipt of the test results.

TABLE 1

Monitoring Constituents for Exempt Small Landfills

Constituent	Maximum Contaminant Level(MCL) (in milligrams per liter mg/l)
VOLATILE ORGANIC COMPOUNDS	
Benzene	0.005
1,2-Dichloroethane	0.005
1,1-Dichloroethene	0.007
1,2-Dichloropropane	0.005
Ethylbenzene	0.7
Styrene	0.1
Tetrachloroethene	0.005
Toluene	1.0
1,1,1-Trichloroethane	0.2
Trichlorethene	0.005
Trichloroethene	0.005
Vinyl Chloride	0.002
Total Xylenes	10.0
METALS (dissolved)	
Cadmium	0.005
Chromium (total)	0.05

(4) If the owner or operator of any existing small landfill demonstrates that naturally occurring geological conditions provide sufficient protection against groundwater contamination by compliance with subsection (g) or subsection (h) of this regulation, the owner or operator may reduce the sampling frequency established in paragraph (f)(3) from semiannual samples to annual samples.

(5) The groundwater monitoring program shall include consistent sampling and analysis procedures in accordance with K.A.R. 28-29-112, subsections (a), (b)(1) through (b)(4), (c), and (d), as amended.

(6) If any monitoring well exceeds the maximum contaminant level of any constituent listed in Table 1 in subsection (f) of this regulation, the owner or operator shall sample the well again, within 30 calendar days of the finding. If the second sample confirms that contamination levels exceed the maximum contaminant level of any constituent listed in Table 1, the exempt status of the landfill shall be revoked, and the owner or operator shall comply with K.A.R. 28-29-104 and K.A.R. 28-29-110 through 28-29-114, as amended.

(7) The groundwater sampling and analysis requirements of subsection (f) of this regulation may be suspended by the department at existing small landfills if the owner or operator demonstrates the following:

(A) naturally occurring geological conditions provide sufficient protection against groundwater contamination as evidenced by compliance with subsection (g) or (h) of this regulation;

(B) the uppermost aquifer does not exist within a depth of 150 feet below the lowest depth of the municipal solid waste; and

(C) no potential for migration of hazardous constituents exists from that MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care period. This demonstration shall be certified by a qualified groundwater scientist and

approved by the department.

(8) The groundwater monitoring, sampling, and analysis required in subsection (f) of this regulation may be reduced or suspended by the department based on site-specific data.

(g) Groundwater modeling.

(1) Each owner or operator of a small landfill meeting the exemption criteria shall demonstrate that a constructed liner at the site or naturally occurring strata prohibit contaminants from exceeding the concentration values listed in Table 1 of K.A.R. 28-29-104, subsection (e), as amended, in the uppermost aquifer at the point of compliance based on fate and transport modeling of predicted landfill leachate. The point of compliance shall be located as follows:

(A) within 150 meters or 492 feet of the edge of the planned unit boundary; and

(B) on the owner's or operator's property.

(2) When approving modeling demonstrations, the following factors may be considered by the department:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic factors of the area; and

(C) the volume and physical and chemical characteristics of the leachate. The expected performance of the design shall be evaluated at maximum annual leachate flow conditions.

(3) Each model demonstration developed pursuant to subsection (g)(1) of this regulation shall be certified by a qualified groundwater scientist.

(4) Each owner or operator of a small landfill performing the groundwater modeling demonstration shall comply with the groundwater monitoring, sampling, and analysis requirements prescribed in subsection (f).

(h) Liner performance standard.

(1) Each owner or operator shall demonstrate that *in situ* material meets the liner performance standard by submitting the following information for each small landfill unit:

(A) certification from a professional engineer licensed in Kansas that the *in situ* material immediately below the bottom of the municipal solid waste layer but prior to encountering groundwater meets these conditions:

(i) has a permeability equivalent to two feet of 1 x 10^{-6} cm/ sec material; and

(ii) within the equivalently permeable layer, has no soil layer or stratum with a permeability greater than 1 x 10^{-4} cm/sec and with sufficient continuity and thickness to allow groundwater to flow laterally off the owner's property; and

(iii) shows consistency in all boring data.

(B) data from a minimum of one centrally located boring that provides a soil profile to a depth of the following:

(i) the water table;

(ii) 46 meters or 150 feet; or

(iii) a point where a minimum of 10 feet of 1 x 10^{-9} cm/sec material is encountered;

(C) data from a minimum of four additional borings of sufficient depths to provide data supporting the certification in paragraph (h)(1)(A) of this regulation;

(D) laboratory soil or field permeability data sufficient to provide data supporting the certification in paragraph (h)(1)(A) of this regulation; and

(E) evidence that the highest water table of any underlying groundwater is a minimum of 1.5 meters or five feet below the bottom of the material used to make the demonstration that the in situ material meets the liner performance standard.

(2) When approving a liner demonstration for compliance with this subsection, the following minimum factors shall be considered by the department:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic characteristics of the area; and

(C) the volume and physical and chemical characteristics of the leachate.

(3) Each owner or operator demonstrating the liner performance standard shall comply with the groundwater monitoring, sampling, and analysis requirements prescribed in subsection (f).

(i) Each owner or operator shall document in the operating record that the small landfill unit meets the requirements in subsection (f), (g) or (h) of this regulation. (Authorized by K.S.A. 1995 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct.

24, 1994; amended Dec. 13, 1996.)

28-29-104. Design standards.

(a) General design standards.

(1) Existing units. Any portion of a trench or area of an existing unit not filled to its permitted design capacity by October 9, 1996, shall be considered a vertical expansion subject to the standards in K.A.R. 28-29-104(a)(2), or a new unit subject to the standards in K.A.R. 28-29-104(a)(3).

(2) Vertical expansions.

(A) Any proposed vertical expansion shall be considered a significant modification to the facility and subject to permit modification procedural requirements.

(B) Any proposed vertical expansion shall meet the following requirements, in addition to any other applicable MSWLF regulations.

(i) A hydrogeologic site assessment shall be conducted in compliance with K.A.R. 28-29-104(b).

(ii) A groundwater monitoring well system shall be in place, pursuant to K.A.R. 28-29-111.

(iii) The owner or operator shall operate the landfill in a manner that minimizes leachate generation.

(iv) If groundwater contamination is detected, the owner or operator of the proposed vertical expansion shall initiate an assessment of corrective measures, pursuant to K.A.R. 28-29-114(a)(1).

(v) The final cover design shall meet the requirements of K.A.R. 28-29-121(e)(1).

(vi) Local planning and zoning approval shall be obtained from the appropriate jurisdictional body.

(vii) The owner or operator shall secure certification from the board of county commissioners that the vertical expansion is in conformance with the official county or regional solid waste management plan.

(C) A vertical expansion over a closed unit which has received final cover shall be classified as a new unit, and therefore subject to the design standards for new units.

(D) In evaluating a proposed vertical expansion, the department shall consider the following factors:

(i) The impact of the proposed vertical expansion on human health and the environment rather than other alternatives, including a new unit;

(ii) the capacity needs of the community or communities and the region using the landfill;

(iii) the proposed operating life of the vertical expansion; and

(iv) the inclusion or exclusion of the landfill in a regional solid waste management plan.

(E) The expiration date for a permit modified to allow for a vertical expansion shall not exceed five years from the date the modified permit is issued. At the end of the initial five year period, and any subsequent five year period, the owner may submit a request for an additional five-year permit. The request shall include an assessment of the environmental impact of the vertical expansion. Based on an evaluation of the environmental impact, the permit shall either be denied, or renewed for a period not to exceed five additional years by the director.

(3) New units.

(A) All new units shall be equipped with a leachate drainage and collection system and liner designed as an integrated system in compliance with the requirements of this section.

(B) The design period for new municipal landfills shall be the estimated operating life plus 30 years of post-closure care.

(b) Hydrogeologic site investigations.

(1) The owner or operator of a proposed MSWLF unit shall conduct a hydrogeologic investigation to develop information for the following purposes:

(A) providing information to determine an appropriate design for the unit; and

(B) providing information to establish a groundwater monitoring system.

(2) Prior to submitting an application to the department for a permit to develop and operate a MSWLF or to design a groundwater monitoring system, the hydrogeologic site investigation shall be conducted in a minimum of two phases, unless the department approves conducting the two phases concurrently.

(A) The purpose of the phased study shall be to allow for the consideration by the department of information gathered during phase I prior to proceeding with phase II.

(B) If the owner or operator of an existing MSWLF has already compiled sufficient data to fulfill the requirements of the hydrogeologic investigation, this information may be submitted to the department in lieu of conducting a new assessment.

(3) For the purposes of the hydrogeologic investigation set forth in paragraph (b)(1), the area to be investigated shall consist of the entire area occupied by the facility and any adjacent areas, if necessary to fully characterize the site.

(4) All borings shall be sampled continuously except where continuous sampling is impossible or where interval sampling or sampling at recognizable points of geologic variation will provide satisfactory information. Sampling intervals shall not exceed 1.52 vertical meters (5 feet).

(5) The phase I hydrogeologic investigation shall consist of the following items.

(A) A minimum of one continuously sampled boring shall be drilled on the site, as close as possible to the geographic center, to determine if available regional hydrogeologic setting information is accurate and to characterize the site-specific hydrogeology to the extent specified by this phase of the investigation. The boring shall extend to the bottom of the uppermost aquifer. This boring shall be constructed so that it will not provide a conduit for contaminant migration to a lower aquifer or formation.

(B) The following information shall be gathered by the owner or operator:

(i) climatic aspects of the study area;

(ii) the regional and study area geologic and hydrogeologic setting, including a description of the geomorphology and stratigraphy of the area and aquifer characteristics, including water table depths; and

(iii) any other information needed for the purpose of designing a phase II hydrogeologic investigation.

(C) The information from the phase I investigation shall be compiled in a report and submitted with evaluations and recommendations to the department for review and approval.

(D) The results and conclusions of the phase I report shall be certified by a qualified groundwater scientist.

(6) The phase II hydrogeologic investigation shall consist of the following items.

(A) One boring shall be located as close as possible to the topographical high point, and another shall be located as close as possible to the topographical low point of the study area.

(B) Additional borings shall be made in order to characterize the subsurface geology of the entire study area.

(C) Piezometers and groundwater monitoring wells shall be established to determine the direction and flow characteristics of the groundwater in all strata and extending down to the bottom of the uppermost aquifer. Groundwater samples taken from the monitoring wells shall be used to develop preliminary information needed for establishing background concentrations.

(D) The owner or operator shall gather the following site-specific information, as necessary, to augment the data collected during the phase I investigation:

(i) chemical and physical properties including, but not limited to, lithology, mineralogy, and hydraulic characteristics of underlying strata including those below the uppermost aquifer;

(ii) soil characteristics, including soil types, distribution, geochemical and geophysical characteristics;

(iii) hydraulic conductivities of the uppermost aquifer and all strata above it;

(iv) vertical extent of the uppermost aquifer;

(v) direction and rate of groundwater flow; and

(vi) concentrations of chemical constituents present in the groundwater below the unit, down to the bottom of the uppermost aquifer, using a broad range of chemical analysis and detection procedures such as gas chromatographic and mass spectrometric scanning.

(E) The owner or operator shall evaluate the data gathered during the phase I and phase II investigations and prepare a report for submittal to the department that contains the following information:

(i) structural characteristics and distribution of underlying strata, including bedrock;

(ii) characterization of potential pathways for contaminant migration;

(iii) correlation of stratigraphic units between

borings;

(iv) continuity of petrographic features including, but not limited to, sorting, grain size distribution, cementation and hydraulic conductivity;

(v) identification of the confining layer, if present;

(vi) characterization of the seasonal and temporal, naturally and artificially induced, variations in groundwater quality and groundwater flow;

(vii) identification of unusual or unpredicted geologic features, including fault zones, fracture traces, facies changes, solution channels, buried stream deposits, cross cutting structures and other geologic features that may affect the ability of the owner or operator to monitor the groundwater or predict the impact of the disposal facility on groundwater; and

(viii) recommendations for landfill siting and conceptual design for the department to review and approve.

(F) The results and conclusions of the phase II report shall be certified by a qualified groundwater scientist.

(c) Foundation and mass stability analysis.

(1) The material beneath the unit shall have sufficient strength to support the weight of the unit during all phases of construction and operation. The loads and loading rate shall not cause or contribute to the failure of the liner or leachate collection system.

(2) The total settlement or swell of the foundation shall not cause or contribute to the failure of the liner or leachate collection system.

(3) The solid waste disposal unit shall be designed to achieve a safety factor during the design period against bearing capacity failure of at least 2.0 under static conditions and 1.5 under seismic loadings.

(4) The waste disposal unit shall be designed to achieve a factor of safety against slope failure during the design period of at least 1.5 for static conditions and 1.3 under seismic conditions.

(5) The liner and leachate collection system shall be stable during all phases of construction and operation. The side slopes shall achieve a minimum static safety factor of 1.5 and a minimum seismic safety factor of 1.3 at all times.

(6) In calculating factors of safety, both long term, in tens or hundreds of years, and short term, over the design period of the facility, conditions expected at the facility shall be considered.

(7) The potential for earthquake or blast-induced liquefaction, and its effect on the stability, and integrity of the unit shall be considered and taken into account in the design. The potential for landslides or earthquake induced liquefaction outside the unit shall be considered if such events could affect the unit.

(d) Foundation construction.

(1) If the *in situ* material provides insufficient strength to meet the requirements of subsection (c), then the insufficient material shall be removed and replaced with clean materials sufficient to meet the requirements of subsection (c).

(2) All trees, stumps, roots, boulders and debris shall be removed.

(3) All material shall be compacted to achieve the strength and density properties necessary to demonstrate compliance with this part.

(4) Placement of frozen soil or soil onto frozen ground shall be prohibited.

(5) The foundation shall be constructed and graded to provide a smooth, workable surface on which to construct the liner.

(e) Liner standards.

(1) New MSWLF units shall be constructed:

(A) with a composite liner and a leachate collection system that is designed and constructed in accordance with subsections (g), (h), and (i). For purposes of this regulation, "composite liner" means a system consisting of two components. The upper component shall consist of a minimum 30-mil geomembrane, the lower component shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. Geomembrane components consisting of high density polyethylene (HDPE) shall be at least 60-mil thick. The geomembrane component shall be installed in direct and uniform contact with the compacted soil component in order to minimize the migration of leachate through the geomembrane should a break occur; or

(B) in accordance with an alternative design approved by the department. The design shall

demonstrate that the concentration values listed in table 1 below will not be exceeded in the uppermost aquifer at the point of compliance. The point of compliance shall be within 150 meters (492) feet of the edge of the planned unit boundary. In addition, the point of compliance shall be on the owner's or operator's property and shall be at least 15.24 meters (50 feet) from the property boundary.

(2) When approving a design that complies with paragraph (1)(B), the department shall consider at least the following factors:

(A) the hydrogeologic characteristics of the facility and surrounding land;

(B) the climatic factors of the area; and

(C) the volume and physical and chemical characteristics of the leachate. The design's performance shall be evaluated at maximum annual leachate flow conditions.

(3) Approval of alternate designs shall be considered by the department only when:

(A) the technology or material has been successfully utilized in at least one application similar to the proposed application; and

(B) methods for ensuring quality control during the manufacture and construction of the liner can be implemented.

(4) The owner or operator shall document in the operating record that the liner meets the liner standards in K.A.R. 28-29-104(e)(1)(A) or (B).

Table 1 -- Maximum Contaminant Levels

Chemical	MCL (mg/l)
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.005
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.1
2,4-Dichlorphenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichlorobenzene	0.6
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
cis-1,2-Dichloroethylene	0.07
trans-1,2-Dichloroethylene	0.1
1,2 Dichloropropane	0.005
Endrin	0.0002
Ethylbenzene	0.7
Fluoride	4
Lindane	0.004
Lead	0.05
Mercury	0.002
Methoxychlor	0.1
Monochlorbenzene	0.1
Nitrate	10
Nitrite	1.0
Total Nitrate/Nitrite	10
Selenium	0.05
Silver	0.05
Styrene	0.1
Tetrachloroethylene	0.005
Toluene	1
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002
Xylenes	10

(f) Liner construction.

(1) The construction and compaction of the liner shall be carried out in accordance with the approved design to reduce void spaces and allow the liner to support the loadings imposed by the waste disposal operation without settling that causes, or contributes to the failure of the leachate collection system.

(2) The liner shall be constructed from materials whose properties are not affected by contact with the constituents expected to be in leachate generated by the landfill.

(3) Geomembrane liners shall be constructed in compliance with the following requirements.

(A) The geomembrane shall be supported by a compacted base free from sharp objects. The geomembrane shall be chemically compatible with the supporting soil materials.

(B) The geomembrane shall have sufficient strength and durability to function at the site for the design period under the maximum expected loadings imposed by the waste and equipment and stresses imposed by settlement, temperature, construction and operation.

(C) Seams shall be made in the field according to the manufacturer's specifications. All sections shall be arranged so that the use of field seams is minimized and seams are oriented in the direction subject to the least amount of stress where practical.

(D) The leachate collection system shall be designed to avoid loss of leachate through openings through the geomembrane.

(g) Leachate drainage system.

(1) The leachate drainage system shall be designed and constructed to operate for the entire design period.

(2) The system shall be designed in conjunction with the leachate collection system required by subsection (h):

(A) to maintain a maximum head of leachate 0.30 meter (one foot) above the liner; and

(B) to operate during the month when the highest average monthly precipitation occurs, and if the liner bottom is located within the saturated zone, under the condition that the groundwater table is at its seasonal high level.

(3) A drainage layer shall overlay the entire liner system. This drainage layer shall be no less than 0.30 meter (one foot) thick.

(4) The drainage layer shall be designed to maintain flow throughout the drainage layer under the conditions described in paragraph (g)(2) above.

(5) Materials used in the leachate drainage system shall be chemically resistant to the wastes and the leachate expected to be produced.

(h) Leachate collection system.

(1) The leachate collection system shall be designed and constructed to function for the entire design period. The leachate collection system shall consist of conduits including pipes, trenches, or a combination of pipes and trenches.

(2) Materials used in the leachate collection system shall be chemically resistant to the leachate expected to be produced.

(3) The leachate collection system shall be designed so that leachate drains freely from the collection conduits. If sumps are used, leachate shall be removed via gravity flow, whenever possible, before the level of leachate in the sumps rises above the invert of the collection conduits under the conditions established in paragraph (g)(2) above. If gravity flow is not possible, pumping may be utilized to remove leachate, but the use of pumps shall be minimized.

(4) Collection conduits shall be designed to capture leachate for open channel flow to convey leachate under the conditions established in paragraph (g)(2) above.

(5) Collection pipe conduits.

(A) Collection pipe shall be of a cross-sectional area that allows cleaning and at least 0.10 meter (four inches) nominal inside diameter.

(B) The collection pipe material and bedding materials as placed shall possess structural strength to support the maximum loads imposed by the overlaying materials and equipment used at the facility, as well as the effects of differential settling.

(C) Collection pipes shall be constructed within a coarse gravel envelope using a graded filter or geotextile as necessary to minimize clogging.

(D) The collection pipe system shall be equipped with a sufficient number of manholes and cleanout risers to allow cleaning and maintenance of all pipes throughout the design period.

(6) Trench conduits.

(A) Trench conduits shall be designed to minimize particulate and biological clogging.

(B) Trench conduits shall be constructed to minimize movement of drainage media when a load is placed on the media.

(i) Leachate treatment and disposal system.

(1) The owner or operator shall be responsible for the operation of a leachate management system designed to handle all leachate as it is removed from the collection system. The leachate management system shall consist of any combination of storage, treatment, pretreatment, and disposal options.

(2) The leachate management system shall allow for the management and disposal of leachate during routine

maintenance and repairs.

(3) Standards for leachate storage systems.

(A) The leachate storage facility shall be capable of storing a minimum of five days' worth of accumulated leachate at the maximum generation rate used in designing the leachate drainage system in accordance with subsection (g) of this regulation.

(B) Each leachate storage facility shall be equipped with secondary containment systems equivalent to the protection provided by a clay liner 0.61 meter (two feet) thick, having a permeability no greater than 1 X 10^{-7} centimeters per second.

(C) Each leachate storage system shall be fabricated from material compatible with the leachate expected to be generated and resistant to temperature extremes.

(D) The leachate storage system shall be designed to minimize odors.

(E) The leachate drainage and collection system shall not be used for the purpose of storing leachate.

(4) Standards for discharge to an off-site treatment works.

(A) Each owner or operator that discharges leachate to off-site facilities shall ensure that the receiving facility has all applicable permits or approvals in accordance with state and local water regulations.

(B) The owner or operator of a MSWLF may be required to obtain a permit or prior approval for conveyance to an off-site treatment facility.

(C) Pumps, meters, valves and monitoring stations that control and monitor the flow of leachate from the unit and which are under the control of the owner or operator shall be considered part of the facility and shall be accessible to the owner or operator at all times.

(5) Standards for leachate recycling systems.

(A) A leachate recycling system shall be utilized only at permitted waste disposal units that meet the following requirements.

(i) The unit shall have a liner designed, constructed and maintained to meet the minimum standards of paragraph (e)(1)(A) or (B) of this regulation.

(ii) The unit shall have a leachate collection system in place and operating in accordance with subsection (h) of this regulation.

(iii) The topography shall be such that any accidental leachate run-off can be controlled by ditches, berms or other equivalent control means.

(B) Leachate shall not be recycled during precipitation events or in volumes large enough to cause run-off or surface seeps.

(C) The amount of leachate added to the unit shall not exceed the ability of the waste and cover soils to transmit leachate flow downward. All other leachate shall be considered excess leachate, and a leachate management system capable of disposing of all excess leachate shall be available.

(D) The leachate storage and distribution system shall be designed to avoid exposure of leachate to air unless aeration or functionally equivalent devices are utilized.

(E) The distribution system shall be designed to allow leachate to be evenly distributed beneath the surface over the recycle area.

(6) Leachate monitoring.

(A) Representative samples of leachate shall be collected annually from each unit and tested in accordance with paragraph (i)(6)(B) of this regulation at a frequency of once per year while the leachate management system is in operation.

(B) Discharges of leachate from MSWLFs shall be tested for the following constituents prior to treatment or pretreatment:

(i) five-day biochemical oxygen demand (BOD(5));

(ii) total suspended solids;

(iii) total iron;

(iv) pH;

(v) each of the appendix I parameters listed in K.A.R. 28-29-113; and

(vi) any other constituents as specified by the director.

(C) If it can be shown that the removed constituents are not reasonably expected to be contained in or derived from the waste contained in the unit, the list of constituents in (i)(6)(B) of this regulation may be modified by the director.

(D) An appropriate alternative frequency for repeated sampling and analysis for the constituents listed in paragraph (i)(6)(B) of this regulation, or the alternative list approved in accordance with paragraph

(i)(6)(C) of this regulation, may be specified by the director during the active life, including closure, and the post-closure care period. The alternative frequency shall be based on consideration of the following factors:

(i) leachate quantity; and

(ii) long-term trends in leachate quality.

(7) The owner or operator shall collect and dispose of leachate for a minimum of five years after closure and thereafter until it is determined by the director that treatment is no longer necessary. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-108. Operating standards.

(a) Excluding the receipt of hazardous waste. Owners or operators of all MSWLF units shall implement a program at the facility for detecting and preventing the disposal of regulated hazardous wastes as defined pursuant to K.A.R. 28-31-3 and K.A.R. 28-31-4, and polychlorinated biphenyls (PCB) wastes as defined in 40 CFR part 761, as in effect on July 1, 1996. This program shall include the following, at a minimum:

(1) random inspections of incoming loads, unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;

(2) records of any inspections;

(3) training of facility personnel to recognize regulated hazardous waste and PCB wastes; and

(4) notification of the department if a regulated hazardous waste or PCB waste is discovered at the facility.

(b) Daily cover.

(1) A uniform layer of at least 0.15 meter(six inches)of soil material shall be placed on all exposed waste at the end of each day of operation.

(2) Alternative materials or procedures, including the removal of daily cover before additional waste placement, may be used, if the alternative materials or procedures achieve performance equivalent to the requirements of paragraph (b)(1) in the following areas:

(A) prevention of blowing debris;

(B) minimization of access to the waste by vectors;

(C) minimization of the threat of fires at the open face;

(D) minimization of odors; and

(E) shedding precipitation.

(3) Each owner or operator wishing to use alternative materials for daily cover shall obtain approval from the department before application.

(c) Intermediate cover.

(1) All waste that is not to be covered within 60 days of placement by another lift of waste or final cover in accordance with K.A.R. 28-29-121 shall have a cover consisting of 0.30 meter (one foot) of compacted soil material. In addition, any MSWLF unit that will not receive any waste for an entire growing season shall be seeded.

(2) All areas with intermediate cover shall be graded so as to facilitate drainage of runoff and minimize infiltration and standing water.

(3) The grade and thickness of intermediate cover shall be maintained until the placement of additional wastes or the final cover. All cracks, rills, gullies, and depressions shall be repaired to prevent access to the solid waste by vectors, to minimize infiltration and to prevent standing water.

(d) Disease vector control.

(1) Each owner or operator of a MSWLF unit shall prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and the environment.

(2) For purposes of this subsection, "disease vectors" means any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting disease.

(e) MSWLF gas monitoring.

(1) Each owner or operator of a MSWLF unit that receives putrescible waste or industrial wastes that have the potential to generate explosive gases shall establish and conduct an explosive gases monitoring program to ensure that dangerous levels of explosive gases do not occur within facility structures or at the surface or subsurface facility boundary.

(2) The monitoring program shall ensure that these conditions are met:

(A) the concentration of methane gas generated by

the facility does not exceed 25% of the lower explosive limit for methane in facility structures, excluding gas control or recovery system components;

(B) the concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary; and

(C) potential gas migration pathways are identified.

(3) The minimum monitoring frequency for explosive gases shall be quarterly and shall be based on the following factors:

(A) soil conditions;

(B) the hydrogeologic conditions surrounding the facility;

(C) the hydraulic conditions surrounding the facility; and

(D) the location of facility structures and property boundaries.

(4) If methane gas levels exceeding the limits specified in paragraph (e)(2) are detected, the owner or operator shall perform all of the following:

(A) immediately assess the potential danger posed to human health and the environment and take all necessary steps to ensure protection of human health;

(B) within seven days of detecting a gas level exceeding the limit, notify the department and place in the operating record the methane gas levels detected and a description of the steps taken to protect human health;

(C) within 60 days of detecting a gas level exceeding the limit, develop and submit to the department a remediation plan, which provides for the installation of an active or passive gas management system; and

(D) upon approval of the department, implement the remediation plan.

(f) MSWLF gas management standards.

(1) Standards for gas venting systems.

(A) All materials used in gas venting systems shall be resistant to chemical reaction with the constituents of the gas.

(B) The gas venting system shall be capable of venting all gas down to the water table or bottom of the liner, whichever is higher.

(C) Gas venting systems shall be installed only outside the perimeter of the unit, unless it can be shown that gas venting inside the perimeter of the unit will not interfere with the liner, leachate collection system, cover, or monitoring equipment.

(2) Standards for gas collection systems.

(A) Gas collection systems may be installed either within the perimeter of the unit or outside the unit.

(B) The owner or operator shall design and operate gas collection systems so that the standards of paragraph (e)(2) are met.

(C) Gas collection systems shall transport gas to a central point or points for processing for beneficial uses or disposal, in accordance with the requirements of subsection (g) of this regulation.

(D) Gas collection systems shall be designed to function for the entire design period. The design may include changes in the system to accommodate changing gas flow rates or compositions.

(E) All materials and equipment used in the construction of gas collection systems shall be rated by the manufacturer as safe for use in hazardous or explosive environments and shall be resistant to corrosion by constituents of the MSWLF gas.

(F) Gas collection systems shall be designed and constructed to withstand all MSWLF operating conditions, including settlement.

(G) Gas collection systems and all associated equipment including compressors, flares, monitoring installations, and manholes shall be considered part of the facility.

(H) Provisions shall be made for collecting and draining gas condensate to the leachate management system or another management system approved by the department.

(I) A gas collection system shall not compromise the integrity of the liner or of the leachate collection or cover systems.

(J) The portion of each gas collection system used to convey the gas collected from one or more units for processing and disposal shall be tested to be airtight to prevent the leaking of gas from, or entry of air into, the collection system.

(K) The gas collection system shall be operated until the waste has stabilized enough to no longer produce

methane in quantities that exceed the minimum allowable concentrations set out in paragraph (e)(2) of this regulation.

(L) Each gas collection system shall be equipped with a mechanical device, capable of withdrawing gas, or shall be designed so that a mechanical device can be easily installed at a later time, if necessary, to meet the allowable concentrations set out in paragraph (e)(2).

(g) MSWLF gas processing and disposal system.

(1) Each MSWLF with a permanent gas collection system shall evaluate the feasibility of processing of MSWLF gas for use.

(2) The following MSWLF gas processing devices and disposal systems shall remain under the control of the owner or operator and shall be considered part of the facility:

(A) compressors;

(B) blowers;

(C) raw gas monitoring systems;

(D) devices used to control the flow of gas from the unit;

(E) flares;

(F) gas treatment devices; and

(G) air pollution control devices and monitoring equipment.

(3) All gas discharges and gas processing and disposal systems shall conform with all local, state, and federal air quality requirements.

(h) Air criteria.

(1) Open burning shall be prohibited, except in accordance with K.A.R. 28-19-47.

(2) Methane, non-methane organic compounds, and other regulated emissions shall conform with all local, state, and federal air quality requirements.

(i) Boundary control.

(1) Access to the open face area of the unit and all other areas within the boundaries of the facility shall be restricted at all times to prevent unauthorized entry.

(2) A permanent sign shall be posted at the entrance to the facility stating that disposal of hazardous waste is prohibited and that, unless the waste is a predetermined class of special waste as set forth in K.A.R. 28-29-109(d)and approved for disposal by the MSWLF, special wastes shall be accompanied by a disposal authorization issued by the department. The sign shall also include the following information:

(A) solid waste disposal area permit number;

(B) hours of operation;

(C) penalty for unauthorized trespassing and dumping;

(D) name and telephone number of the appropriate emergency response agencies who shall be available to deal with emergencies and other problems, if different from the owner or operator; and

(E) name, address, and telephone number of the company operating the facility.

(j) Surface water drainage.

(1) Each owner or operator of a MSWLF unit shall design, construct, and maintain the following:

(A) a run-on control system to prevent flow onto the active portion of the MSWLF during the peak discharge from a 24-hour, 25-year storm; and

(B) a runoff control system from the active portion of the MSWLF to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(2) Each surface water control structure shall be operated until the final cover is placed and erosional stability is provided by the vegetative or other cover.

(3) Diversion of runoff from undisturbed areas.

(A) Runoff from undisturbed areas shall be diverted around disturbed areas, unless the owner or operator shows that it is impractical based on site-specific conditions.

(B) Diversion facilities shall be designed to prevent runoff from the 25-year, 24-hour precipitation event from entering disturbed areas.

(C) Runoff from undisturbed areas that becomes commingled with runoff from disturbed areas shall be handled as runoff from disturbed areas and managed in accordance with paragraph (j)(1)(B) above.

(4) The facility shall not cause the discharge of a nonpoint source of pollution to waters of the United States, including wetlands, that violates any requirement of an area-wide or statewide water quality management plan that has been approved under 33 U.S.C. sections 1288 or 1329.

(5) The facility shall not cause a discharge of

pollutants into waters of the United States, including wetlands, that violates any requirements of 33 U.S.C. 1251, *et seq*., 1994 edition.

(k) Liquids restrictions.

(1) Bulk or noncontainerized liquid waste shall not be placed in MSWLF units unless either of these conditions is met:

(A) the waste is residential waste other than septic waste; or

(B) the waste is leachate or gas condensate derived from the MSWLF unit, and the MSWLF unit, whether it is a new or existing unit, is designed with a liner and leachate collection system as described in K.A.R. 28-29-103(e), or K.A.R. 28-29-104(e)(1)(A) or (B).

(2) Containers holding liquid waste shall not be placed in a MSWLF unit unless any of these conditions is met:

(A) the container is a small container similar in size to that normally found in residential waste;

(B) the container is designed to hold liquids for use other than storage; or

(C) the waste is residential waste.

(3) For purposes of this subsection, these provisions shall apply:

(A) "liquid waste" means any waste material that is determined to contain "free liquids" as defined by method 9095A, revision 1, paint filter liquids test, as described in "test methods for evaluating solid waste, physical/chemical methods," EPA pub. no. SW-846, dated December, 1996; and

(B) "gas condensate" means the liquid generated as a result of gas collection and recovery process or processes at the MSWLF unit.

(l) Survey controls.

(1) The boundaries of all waste disposal units, property boundaries, disturbed areas, and the permit area for facilities subject to this part shall be surveyed and marked by a professional land surveyor. All stakes shall be clearly marked, inspected annually, and replaced if missing or damaged.

(2) Control monuments shall be established to check vertical elevations. The control monuments shall be established and maintained by a professional land surveyor.

(m) Compaction.

(1) All wastes shall be deposited in the smallest practical area and shall occur at the lowest part of the active face. Wastes may be deposited at locations other than the lowest part of the active face, if site conditions do not allow deposition of wastes at the lowest part of the active face, or if locations other than the lowest part of the active face are in the approved facility operational plan.

(2) All wastes shall be compacted to the highest achievable density necessary to minimize void space and settlement, unless precluded by extreme weather conditions.

(n) Phasing of operations.

(1) Waste shall be placed in a manner and at such a rate that mass stability is provided during all phases of operation. Mass stability shall mean that the mass of the waste deposited will not undergo settling or slope failure that interrupts operations at the facility or causes damage to any of the various MSWLF operations or structures, including the liner, leachate or drainage collection system, gas collection system, or monitoring system.

(2) The phasing of operations at the facility shall be designed in such a way as to allow the sequential construction, filling, and closure of discrete units or parts of units.

(3) The owner or operator shall design and sequence the waste placement operation in each discrete unit or parts of units to allow the wastes to be built up to each unit's planned final grade as quickly as possible.

(o) Size and slope of working face.

(1) The working face of the unit shall be no larger than is necessary, based on the terrain and equipment used in waste placement, to conduct operations in a safe and efficient manner.

(2) The slopes of the working face area shall be no steeper than 2:1, horizontal:vertical, unless the waste is stable at steeper slopes.

(p) Salvaging.

(1) Salvaging operations shall not cause any of the following:

(A) interfere with the operation of the waste

disposal facility;

(B) result in a violation of any standard in this regulation; or

(C) delay the construction or interfere in the operation of any of the following:

(i) the liner;

(ii) leachate collection system;

(iii) daily, intermediate, or final cover; or

(iv) any monitoring devices.

(2) All salvaging operations shall be confined to an area remote from the working face of the MSWLF and be performed in a safe and sanitary manner in compliance with the requirements of this subsection.

(3) Salvageable materials may be accumulated on-site by a MSWLF owner or operator, if they are managed in a manner that will not create a nuisance, harbor vectors, cause offensive odors, or create an unsightly appearance.

(4) Scavenging at MSWLFs shall be prohibited.

(q) Recordkeeping.

(1) The owner or operator of a MSWLF unit shall record and retain on-site for a period of five years, in an operating record, the following information as it becomes available:

(A) location restriction demonstrations required under K.A.R. 28-29-102 of this part;

(B) inspection records, training procedures, and notification procedures required under K.A.R. 28-29-108(a);

(C) gas monitoring results from monitoring and any remediation plans required by K.A.R. 28-29-108(e);

(D) MSWLF unit design documentation for placement of leachate or gas condensate in a MSWLF unit as required under K.A.R. 28-29-108(k);

(E) demonstrations, certifications, findings, monitoring, testing, or analytical data required by K.A.R. 28-29-111 through K.A.R. 28-29-114;

(F) closure and post-closure care plans and any monitoring, testing, or analytical data as required by K.A.R. 28-29-121 and K.A.R. 28-29-122;

(G) cost estimates and financial assurance documentation required by K.S.A. 1996 Supp. 65-3407(h), as amended by L. 1997, Ch. 140, Sec. 4;

(H) demonstrations for the small landfill exemption as required by K.A.R. 28-29-103;

(I) demonstrations that the liner meets the liner standards as required in K.A.R. 28-29-104 (e)(1)(A) or (B); and

(J) a copy of the current facility permit, including all approved plans and specifications.

(2) All information contained in the operating record shall be furnished upon request to the department or made available at any reasonable times for inspection by the department.

(r) Other operating standards.

(1) In order to achieve and maintain compliance with the requirements of these regulations, adequate equipment shall be available for use at the facility during all hours of operation.

(2) All utilities, including heat, lights, power and communications equipment, and sanitary facilities, necessary for operation in compliance with the requirements of this regulation shall be available at the facility at all times.

(3) The owner or operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with this regulation.

(4) The owner or operator shall implement methods for controlling dust to minimize wind dispersal of particulate matter.

(5) The facility shall be designed, constructed, and maintained to minimize the level of equipment noise audible outside the facility.

(6) The owner or operator shall make arrangements for fire protection services when a fire protection district or other public fire protection service is available. When such a service is not available, the owner or operator shall institute alternate fire protection measures.

(7) The owner or operator shall patrol the facility to check for litter accumulation and take all necessary steps to minimize blowing litter, including the use of screens. All litter shall be collected and placed in the fill or in a secure, covered container for later disposal.

(8) The owner or operator shall implement a plan for litter control for all vehicles on the permitted facility

site.

(9) An operational safety program shall be provided for employees at each MSWLF facility.

(10) MSWLF access roads shall be of all-weather construction and shall be negotiable at all times by trucks and other vehicles.

(11) Access to MSWLFs shall be limited to hours when an attendant or operating personnel are at the site.

(12) The owner or operator of each MSWLF shall maintain a log of commercial or industrial solid wastes received, including sludges, barreled wastes, and special wastes.

(A) The log shall indicate the source and quantity of waste and the disposal location.

(B) The areas used for disposal of these wastes and other large quantities of bulk wastes shall be clearly shown on a site map and referenced to the boundaries of the tract or other permanent markings.

(13) Sludges, industrial solid wastes, or special wastes shall not be disposed in a MSWLF until the department has been notified and has issued a disposal authorization including specific arrangements for handling of the wastes.

(s) Operating flexibility.

(1) The operator of any unit that has been granted a small landfill exemption under K.A.R. 28-29-103 may request from the director approval for alternatives to the following operating requirements:

(A) daily cover:

(B) MSWLF gas monitoring; and

(C) record keeping.

(2) Each alternate requirement approved by the director shall meet the following requirements:

(A) consider the unique characteristics of small communities;

(B) take into account climatic and hydrogeologic conditions; and,

(C) be protective of human health and the environment. (Authorized by K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 139, Sec. 1; implementing K.S.A. 65-3401, as amended by L. 1997, Ch. 140, Sec. 1; effective Oct. 24, 1994; amended July , 10, 1998.)

28-29-109. Special waste.

(a) Disposal of special waste. Any person may dispose of special waste, as defined in K.A.R. 28-29-101, if both of the following conditions are met.

(1) The person disposes of the special waste at a permitted municipal solid waste landfill (MSWLF).

(2) The special waste meets one of the following requirements.

(A) The special waste has been issued a special waste disposal authorization in accordance with subsections (b) and (c) of this regulation and is disposed of in accordance with subsection (j) of this regulation.

(B) The special waste is a predetermined class of special waste, as set forth in subsection (d) of this regulation, and is disposed of in accordance with subsections (j) and (k) of this regulation.

(b) Request for special waste disposal authorization. Each person requesting a special waste disposal authorization shall provide the following information to the department:

(1) a description of the waste, including the following information:

(A) the type of waste;

(B) the process that produced the waste;

(C) the physical characteristics of the waste; and

(D) the quantity of waste to be disposed of;

(2) the following information concerning the generator:

(A) name;

(B) address;

(C) telephone number; and

(D) contact person;

(3) the location of waste generation, if different from the generator address;

(4) the name and address of each solid waste transfer station proposed for transfer of the waste;

(5) the name and address of the MSWLF proposed for disposal of the waste;

(6) a statement, signed by the generator of the waste, or an agent of the generator, that the waste is not a listed hazardous waste, or a waste that exhibits the characteristics of a hazardous waste, pursuant to K.A.R. 28-31-3, based on knowledge of the process

generating the waste, laboratory analyses, or both; and

(7) all laboratory analyses that have been performed to determine if the waste is a listed hazardous waste, or a waste that exhibits the characteristics of a hazardous waste.

(A) If departmental certification is available for an analysis, only a laboratory that is certified for the analysis by the department shall perform the analysis.

(B) Each analysis shall include the following analyses:

(i) each analysis required to make a determination of hazardous waste characteristics pursuant to K.A.R. 28-31-3; and

(ii) all additional analyses specified by the department.

(C) The generator shall provide a signed statement for each analysis stating that the analysis is representative of the waste.

(D) If the waste is unused or spilled product, and the waste has not been combined with any substance other than absorbent, the generator may submit a material safety data sheet for the waste in lieu of laboratory analyses.

(c) Issuance of special waste disposal authorizations.

(1) Not later than ten working days after the department receives a request for a special waste disposal authorization, the person making the request shall be notified by the department that the department has made one of the following determinations.

(A) The request for a special waste disposal authorization is not complete.

(B) The waste does not require a special waste disposal authorization.

(C) The waste is a special waste, and the request for a special waste disposal authorization is approved.

(D) The waste is a special waste, and the request for a special waste disposal authorization is denied. The denial notification shall include the reason for denial.

(2) If a special waste is authorized for disposal, a written special waste disposal authorization stating the terms for transportation and disposal of the special waste shall be provided by the department to all of the following persons:

(A) the person requesting the special waste disposal authorization, the generator of the waste, or both;

(B) the owner or operator of each solid waste transfer station proposed for transfer of the solid waste; and

(C) the owner or operator of the MSWLF proposed for disposal of the special waste.

(3) A special waste disposal authorization shall not obligate any MSWLF or solid waste transfer station owner or operator to accept the special waste.

(d) Predetermined classes of special waste. The following wastes shall be classified as special wastes:

(1) soil and debris contaminated with petroleum products from leakage of any underground storage tank (UST), if the UST has never been used to store any substance other than aviation fuel, diesel fuel, fuel oil, gasoline, or kerosene;

(2) soil and debris contaminated by spills of aviation fuel, diesel fuel, fuel oil, gasoline, or kerosene;

(3) asbestos-containing material regulated under K.A.R. 28-50-14; and

(4) medical services waste, as defined in K.A.R. 28-29-27.

(e) Disposal authorization for predetermined classes of special waste. Any predetermined class of special waste identified in subsection (d) of this regulation shall not require an individual special waste disposal authorization from the department if the special waste is disposed of at a MSWLF approved for disposal of the predetermined class of special waste in accordance with subsections (f) through (k) of this regulation.

(1) Approval by the department for the MSWLF to accept predetermined special waste shall fulfill the requirements of departmental notification and issuance of a disposal authorization set forth in K.A.R. 28-29-108(r)(13).

(2) Approval by the department for the MSWLF to accept asbestos as a predetermined special waste shall fulfill the requirements of prior departmental approval for disposal of asbestos in K.A.R. 28-50-14(a)(5).

(f) Request for approval to accept

predetermined classes of special waste without individual disposal authorizations from the department. Any owner or operator of a permitted MSWLF may request approval from the department to accept one or more predetermined classes of special waste identified in subsection (d) of this regulation. Each request shall include the following information:

(1) identification of each predetermined class of special waste the MSWLF proposes to receive;

(2) if the MSWLF proposes to receive soil and debris contaminated with aviation fuel, diesel fuel, fuel oil, gasoline, or kerosene, a sampling and analysis plan for the soil and debris. Iowa method OA-1, "method for determination of volatile petroleum hydrocarbons (gasoline)," revision 7/27/93, shall be performed on a minimum of one representative sample from the first 100 cubic yards of soil and debris, and a minimum of one representative sample from every 300 cubic yards of soil and debris thereafter;

(3) a plan for managing each predetermined class of special waste the MSWLF proposes to receive. Upon departmental approval, the owner or operator of the MSWLF shall incorporate this plan into the operating plan of the MSWLF; and

(4) certification, signed by the owner or operator of the MSWLF, that the owner or operator of the MSWLF shall comply with the acceptance and disposal requirements in subsections (j) and (k) of this regulation.

(g) Approval to accept predetermined classes of special waste without individual disposal authorizations from the department.

(1) Within 30 calendar days after the department receives a complete request for the MSWLF to accept one or more predetermined classes of special waste, the request shall be reviewed by the department, and the person making the request shall be notified by the department that the request is approved or denied.

(2) Departmental approval to accept predetermined classes of special waste may be denied or withdrawn if the MSWLF is not in compliance with K.A.R. 28-29-1 *et seq*.

(h) Generator requirements for transfer of special wastes. Each generator of special waste, or agent of the generator, shall, before transfer of the special waste, identify each load of special waste to the transporter of the special waste as one of the following types of special waste:

(1) a special waste, to be transported in accordance with the special waste disposal authorization letter issued by the department; or

(2) a predetermined class of special waste, to be transported in accordance with the approved operating plan of the MSWLF at which the special waste will be disposed.

(i) Transporter requirements for transfer and disposal of special wastes.

(1) Before transfer or disposal of special waste, each transporter of special waste shall provide notification of each load of special waste to both of the following persons:

(A) the owner or operator of each solid waste transfer station involved in the transport of the special waste; and

(B) the owner or operator of the MSWLF at which the special waste will be disposed.

(2) The transporter shall identify each load of special waste as one of the following types of special waste:

(A) a special waste accompanied by the special waste disposal authorization letter issued by the department; or

(B) a predetermined class of special waste.

(j) MSWLF requirements for acceptance and disposal of special wastes. The owner or operator of each MSWLF shall comply with each of the following requirements:

(1) if a load of special waste requires a special waste disposal authorization, check for compliance with the special waste disposal authorization;

(2) if the special waste is a predetermined class of special waste, check for compliance with the following requirements:

(A) the requirements for acceptance and disposal of the predetermined class of special waste as set forth in subsection (k) of this regulation; and

(B) the requirements of the approved operating plan of the MSWLF;

(3) reject special waste requiring a special waste disposal authorization if the special waste does not meet both of the following requirements:

(A) have a special waste disposal authorization issued by the department; and

(B) meet the requirements of the special waste disposal authorization;

(4) reject special waste that is a predetermined class of special waste, if the special waste does not meet the following requirements:

(A) the requirements for acceptance and disposal of the predetermined class of special waste as set forth in subsection (k) of this regulation; and

(B) the requirements of the approved operating plan of the MSWLF;

(5) notify the department in writing of each special waste load that is rejected at the MSWLF within one week after the rejection;

(6) dispose of the special waste only if it meets one of the following requirements:

(A) is capable of passing the paint filter liquids test, method 9095A, revision 1, defined in "test methods for evaluating solid waste, physical/chemical methods," EPA pub. no. SW-846, dated December, 1996; or

(B) is exempt from the liquids restriction as set forth in K.A.R. 28-29-108(k);

(7) maintain documentation in the operating record, as set forth in K.A.R. 28-29-108, subsections (q) and (r), of each special waste disposed of at the MSWLF, until the MSWLF is certified for closure pursuant to K.A.R. 28-29-121; and

(8) if the MSWLF accepts one or more predetermined classes of special waste, submit to the department semiannual reports of all predetermined special wastes accepted at the MSWLF.

(A) Reports covering the period of January 1 through June 30 shall be due on or before September 1 of the same year.

(B) Reports covering the period July 1 through December 31 shall be due on or before March 1 of the following year.

(C) The report shall be in a format approved by the department.

(k) MSWLF requirements for acceptance and disposal of predetermined classes of special waste. Each MSWLF may accept a predetermined class of special waste that is not accompanied by a special waste disposal authorization issued by the department only if the MSWLF has received approval from the department to accept the predetermined class of special waste as set forth in subsection (g) of this regulation, and the special waste meets the following requirements:

(1) Soil and debris contaminated with petroleum products from leakage of a UST.

(A) The UST shall never have been used to store any substance other than aviation fuel, diesel fuel, fuel oil, gasoline, or kerosene.

(B) The concentration of benzene and 1,2-dichloroethane in the soil and debris shall each be equal to or less than one of the following concentrations:

(i) 10 mg/kg using a total analysis; or

(ii).5 mg/l using the toxicity characteristic leaching procedure (TCLP) analysis.

(C) For each analysis used to determine the concentrations of benzene and 1,2-dichloroethane, the laboratory shall use methods for which it is certified under K.A.R. 28-15-36.

(i) The laboratory shall use analytical methods other than those listed in paragraph (k)(1)(C) of this regulation only upon written approval from the department.

(ii) Departmental approval may be given for analytical methods that detect benzene and 1,2-dichloroethane with accuracy and precision equal to or greater than the methods listed in paragraph (k)(1)(C) of this regulation.

(D) The soil and debris shall be capable of passing the paint filter test described in paragraph (j)(6) of this regulation.

(2) Soil and debris contaminated by spills of aviation fuel, diesel fuel, fuel oil, gasoline, or kerosene.

(A) The soil and debris shall not be a hazardous waste as defined in K.A.R. 28-31-3.

(B) The soil and debris shall be capable of passing the paint filter test described in paragraph (j)(6) of this regulation.

(3) Asbestos-containing material. The MSWLF

shall accept and dispose of asbestos-containing material in accordance with K.A.R. 28-50-14.

(4) Medical services waste. The MSWLF shall accept and dispose of medical waste in accordance with K.A.R. 28-29-27. (Authorized by K.S.A. 1996 Supp. 65-3406, as amended by L. 1997, Ch. 139, Sec. 1; implementing K.S.A. 1996 Supp. 65-3401, as amended by L. 1997, Ch. 140, Sec. 1; effective July 10, 1998.)

28-29-111. Groundwater monitoring systems; applicability and design.

(a) The requirements in this regulation shall apply to all MSWLF units, except as provided in subsection (b).

(b) Groundwater monitoring requirements may be suspended by the department for a MSWLF unit if the owner or operator demonstrates that there is no potential for migration of hazardous constituents form that MSWLF unit to the uppermost aquifer during the active life of the unit and the post-closure care period. This demonstration shall be certified by a qualified groundwater scientist and approved by the department, and shall be based upon:

(1) site-specific field-collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and

(2) contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and environment.

(3) For the purposes of K.A.R. 28-29-111 and K.A.R. 28-29-112, "hazardous constituent" means all constituents listed in appendix I and appendix II of K.A.R. 28-29-113.

(c) Each owner or operator of a MSWLF unit shall comply with the groundwater monitoring requirements of this part according to the following schedule.

(1) Each existing MSWLF unit or lateral expansion less than or equal to one mile from a drinking water intake, surface or subsurface shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1994.

(2) Each existing MSWLF unit or lateral expansion greater than one mile but less than or equal to two miles from a drinking water intake, surface or subsurface, shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1995.

(3) Each existing MSWLF unit or lateral expansion greater than two miles from a drinking water intake, surface or subsurface, shall be in compliance with the groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1996.

(4) Each MSWLF unit which meets the requirements of K.A.R. 28-29-103(a) and is less than or equal to two miles from a drinking water intake, surface or subsurface, shall be in compliance with applicable groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1995.

(5) Each MSWLF unit which meets the requirements of K.A.R. 28-29-103(a) and is greater than two miles from a drinking water intake, surface or subsurface, shall be in compliance with the groundwater monitoring requirements in K.A.R. 28-29-111 through K.A.R. 28-29-114 by October 9, 1996.

(6) Each new MSWLF unit except those meeting the requirements of K.A.R. 28-29-103(a), shall be in compliance with the groundwater monitoring requirements specified in subsection (f) before waste may be placed in the unit.

(d) Once a MSWLF unit has been established, groundwater monitoring shall be conducted throughout the active life and post-closure care period of that MSWLF unit.

(e) For the purposes of K.A.R. 28-29-100 through K.A.R. 28-29-121, a "qualified groundwater scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields. Sufficient training may be demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgements regarding groundwater monitoring, contaminant fate and

transport, and corrective action.

(f) Groundwater monitoring systems.

(1) A groundwater monitoring system shall be installed that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that:

(A) represent the quality of background groundwater that has not been affected by leakage from a unit; and

(B) represent the quality of groundwater passing the point of compliance.

(2) The owner or operator shall maintain records that, at a minimum include the following:

(A) exact well three-dimensional location;

(B) well size;

(C) type of well;

(D) the design and construction practice used in well installation; and

(E) well and screen depths.

(3) The monitoring wells, piezometers, and other measurement, sampling, and analytical devices shall be operated and maintained so that they perform to design specifications throughout the life of the monitoring program. The owner or operator shall maintain wells to operate throughout the design period of the landfill.

(4) Standards for the location of monitoring points in the detection monitoring system.

(A) Each monitoring well shall be located in a stratigraphic horizon that could serve as a contaminate migration pathways.

(B) Lateral distance from the unit.

(i) For new units, each monitoring well shall be established at a lateral distance not greater than 150 meters (492 feet) from the planned edge of the unit. Each well shall be located on the owner's or operator's property, and shall be at least 15.24 meters (50 feet) from the property boundary. The requirements of paragraph (f)(4)(B)(i) shall not apply to vertical expansions or existing units that are in operation on October 9, 1996.

(ii) For existing units, each monitoring well shall be established at a lateral distance not greater than 150 meters (492 feet) from the planned edge of the unit, and shall be located on the owner's or operator's property.

(C) The number, spacing, and depths of monitoring wells shall be:

(i) determined based upon site-specific technical information gathered from the hydrogeologic investigation conducted pursuant to K.A.R. 28-29-104(b); and

(ii) certified by a qualified groundwater scientist.

(D) The network of monitoring points of several potential sources of discharge within a single facility may be combined into a single monitoring network, provided that discharges from any part of all potential sources can be detected. The following information shall be provided by the owner or operator as requested by the department for use in evaluating an owner's or operator's proposal for a multi-unit monitoring system:

(i) number, spacing, and orientation of each MSWLF unit,

(ii) hydrogeologic setting;

(iii) site history;

(iv) engineering design of each MSWLF unit; and

(v) type of waste accepted at each MSWLF unit.

(5) Well construction standards.

(A) Each monitoring well shall be constructed in accordance with K.A.R. 28-30-6.

(B) Each monitoring well shall be cased with inert materials that will not affect the water sample. Casing requiring solvent-cement type couplings shall not be used.

(C) Each well shall be screened to allow sampling only at the desired interval. The slot size of the screen and filter pack shall be designed to minimize turbidity. Screens shall be fabricated from material expected to be inert with respect to the constituents of the groundwater to be sampled.

(D) Each well shall be equipped with a device to protect against tampering and damage.

(E) Each well shall be developed to allow free entry of water and minimize turbidity of the sample.

(F) The transmissivity of the zone surrounding each well screen shall be established by field-testing techniques. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-112. Groundwater monitoring systems; sampling and data analysis requirements.

(a) The groundwater monitoring program shall include consistent sampling and analysis procedures to ensure that monitoring results provide data representative of groundwater quality in the zone being monitored.

(b) The owner or operator shall develop a sampling and analysis plan to submit to the department for approval that includes the following:

(1) a quality assurance and quality control program for field sampling procedures and laboratory analysis that provides:

(A) quantitative detection limits;

(B) the degree of error for analysis of each chemical constituent;

(C) equipment decontamination procedures; and

(D) other field quality assurance protocols;

(2) A sample preservation and shipment procedure that maintains the integrity of the sample collected for analysis;

(3) a chain of custody procedure to prevent tampering and contamination of the collected samples prior to completion of analysis;

(4) the sampling procedures and analytical methods that will be used, why they are appropriate for groundwater sampling and whether they accurately measure constituents in groundwater samples; and

(5) the statistical method or methods listed in subsection (h) of this regulation which will be used in evaluating monitoring data for each constituent detected.

(c) Groundwater samples shall not be field-filtered prior to laboratory analysis. The director may require field filtered samples in cases where turbidity affects the validity of the results.

(d) The owner or operator shall determine the rate and direction of groundwater flow each time groundwater is sampled. Groundwater elevations in wells that monitor the same waste-management area shall be measured within a period of time short enough to avoid temporal variations in groundwater flow that could preclude accurate determination of groundwater flow rate and direction.

(e) The owner or operator shall conduct quarterly groundwater monitoring for one year to determine background concentrations for each of the monitoring parameters or constituents required in the detection groundwater monitoring program, set out in K.A.R. 28-29-113(a).

(f) Background groundwater quality may be established at wells that are not located hydraulically upgradient from the MSWLF unit if:

(1) hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or

(2) sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells.

(g) The number of samples collected shall be consistent with the appropriate statistical procedures determined pursuant to this regulation.

(h) The following methods shall be acceptable statistical methods to be utilized in evaluating groundwater monitoring data, and shall be applied separately to each constituent detected in each well:

(1) a parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. This method shall include an estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent;

(2) an analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. This method shall include an estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent;

(3) a tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

(4) a control chart approach that gives control limits for each constituent; or

(5) another statistical test method that meets the following performance standards:

(A) The statistical method used to evaluate groundwater monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data may be transformed or a distribution-free theory test may be used. If the distributions for the constituents differ, more than one statistical method may be needed.

(B) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test shall be done at a type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the type I experiment-wise error rate for each testing period shall be no less than 0.05; however, the type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard shall not apply to tolerance intervals, prediction intervals, or control charts.

(C) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(D) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain, shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

(E) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (pql) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

(F) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(i) Any owner or operator wishing to use an alternative statistical test shall seek the approval of the department and provide a justification, for the alternative test. The justification shall demonstrate that the alternative method meets the performance standards listed m paragraph (h)(5) above.

(j) The owner or operator shall determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular groundwater monitoring program that applies to the MSWLF unit.

(1) The owner or operator shall submit the statistical analyses to the department within 45 days of receipt of analytical results.

(2) If requested by the department, the results of the statistical analyses shall be provided in electronic form via computer disc, or other electronic means.

(3) If requested by the department, the raw analytical data shall also be provided.

(k) In determining whether a statistically significant increase has occurred, the owner or operator shall compare the groundwater quality of each parameter or constituent at each downgradient monitoring well to the background value of that constituent, according to the statistical procedures and performance standards specified in this regulation. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

28-29-113. Groundwater monitoring systems, detection and assessment monitoring.

(a) Detection monitoring program.

(1) Detection monitoring shall be required at each

groundwater monitoring well as defined in K.A.R. 28-29-111. At a minimum, a detection monitoring program shall include the monitoring for the constituents listed in appendix I of this regulation. The owner or operator shall also conduct the following evaluations at each well at the time of sample collection and immediately before filtering, if applicable, and preserving samples for shipment:

(A) elevation of the water table;

(B) depth of the bottom of the well;

(C) pH of the sample;

(D) temperature of the sample;

(E) specific conductance of the sample; and

(F) observations of the physical characteristics of the sample.

(2) The monitoring frequency for each constituent listed in appendix I shall be semiannual during the active life of the facility, including closure, and the postclosure period except that monitoring shall be quarterly for the first year. At least one sample from each well, background and downgradient, shall be collected and analyzed. An appropriate alternative frequency for sampling and analysis may be specified by the director. However, the alternative frequency shall be no less than annually.

(3) If the owner or operator determines that there is a statistically significant increase over background for one or more of the constituents listed in Appendix I at any monitoring well, the owner or operator shall:

(A) notify the director within 14 calendar days of this finding. The notification shall indicate which constituents have shown statistically significant changes from background levels; and

(B) within 30 calendar days of this finding, resample the wells showing the statistically significant increase to confirm the finding. If the statistically significant increase is not confirmed, the owner or operator shall return to the detection monitoring program specified in paragraph (a)(1) of this regulation.

(i) If the statistically significant increase is confirmed, the owner or operator shall conduct an assessment monitoring program meeting the requirements of subsection (b) of this regulation, and develop a release assessment plan to determine the nature and extent of the release within 90 days of confirming the statistically-significant increase.

(ii) Upon approval of the release assessment plan by the director, the owner or operator shall implement the release assessment plan, and prepare and submit a report summarizing all activities and findings according to the schedule specified in the plan and approved by the department.

(iii) In lieu of paragraph (a)(3)(B)(i) and (ii) above, the owner or operator may demonstrate to the department that a source other than MSWLF unit caused the contamination, that the statistically significant increase resulted from a natural variation in groundwater quality, or that the statistically significant increase resulted from an error in sampling. A report documenting this demonstration shall be certified by a qualified groundwater scientist and placed in the operating record. If a successful demonstration is made to and approved by the department, the owner or operator may continue detection monitoring as specified in paragraph (a)(1) of this regulation. If after 90 days a successful demonstration is not made, the owner or operator shall conduct assessment monitoring as required in subsection (b) of this regulation, and develop a release assessment plan to determine the nature and extent of the release.

(b) Assessment monitoring.

(1) Assessment monitoring shall be required for:

(A) new municipal solid waste landfills or units, or existing municipal solid waste landfills or units which have established background groundwater concentrations for the appendix I constituents, whenever a statistically significant increase over background has been detected for one or more of the constituents listed in appendix I; and

(B) existing municipal solid waste landfills or units that have not established background groundwater concentrations for the appendix I constituents if groundwater contamination exists that exceeds the maximum contamination limits (MCL's) for any organic constituent contained in appendix I.

(2) Within 90 days of triggering assessment monitoring, the owner or operator shall sample each downgradient well, or those wells specified by the

director, and analyze the groundwater for:

(A) all constituents identified in appendix II; and

(B) the parameters listed in paragraph (a)(1) of this regulation.

(3) Within 180 days of the sampling event described in paragraph (b)(2), the owner or operator shall collect and analyze from each background and downgradient well a minimum of three independent samples to establish background concentrations for each appendix II constituent detected during paragraph (b)(2) analyses.

(4)(A) Within 90 days of the sampling event described in paragraph (b)(3), and on a semiannual basis thereafter, the owner or operator shall sample each downgradient well, or those wells specified by the director, and conduct analysis for all constituents in appendix I and for each constituent in appendix II that is detected during paragraph (b)(2) analyses.

(B) In addition, the owner or operator shall sample each downgradient well for each appendix II constituents on an annual basis.

(C) All analytical results shall be recorded in the facility operating record.

(5) Whenever a new constituent or constituents is detected in a downgradient well as a result of the sampling described in paragraphs (b)(2) or (4), above, the owner or operator shall:

(A) notify the director within 14 days of each appendix II constituent that has been detected;

(B) collect and analyze from each background and downgradient well a minimum of four independent samples to establish background concentrations for the new constituent or constituents; and

(C) include any new constituents detected in any subsequent monitoring.

(6) If it can be shown that the removed constituents are not reasonably expected to be contained in, or derived from the waste contained in the unit, appendix II monitoring for a MSWLF unit may be modified by the director.

(7) An appropriate alternate frequency for repeated sampling and analysis for the full set of appendix II constituents during the active life, including closure, and post-closure care of the unit may be specified by the director.

(8) An appropriate subset of wells to be sampled and analyzed for appendix II constituents during assessment monitoring may be specified by the director.

(9) If the concentrations of all appendix II constituents are shown to be at or below background values, using the statistical procedures in K.A.R. 28-29-112 for two consecutive sampling events, the owner or operator shall notify the department of this finding and may return to detection monitoring, if approved by the department.

(10) If the concentrations of any appendix II constituents are above background values, but all concentrations are below the groundwater protection standard established under subsection (13) using the statistical procedures in section K.A.R. 28-29-112, the owner or operator shall continue assessment monitoring in accordance with this regulation. Based on an analysis of groundwater contamination trends, it may be requested by the director that the owner or operator proceed to the assessment of corrective measures, as described in K.A.R. 28-29-114.

(11) If one or more appendix II constituents are detected at statistically-significant levels above the groundwater protection standard in any sampling event, the owner or operator shall, within 14 days of this finding, notify the department and identify each appendix II constituent that has exceeded the groundwater protection standard.

(12) If a determination is made that contamination has migrated off -site, the owner or operator shall immediately notify all appropriate local government officials and all persons who own the land or reside on the land that directly overlies any part of the plume of contamination.

(13) A groundwater protection standard for each appendix II constituent detected in the groundwater shall be established by the department. The groundwater protection standard shall be:

(A) the maximum contaminant level (MCL) where an MCL has been promulgated under section 1412 of the safe drinking water act under 40 CFR part 141, as in effect on July 1, 1992;

(B) the background concentration for the constituent

established from wells in accordance with paragraph (b)(5)(B) of this regulation; or

(C) the background concentration for the constituent established from wells in accordance with paragraph (b)(5)(B) if the background level is higher than:

(i) the MCL; or

(ii) the health-based levels identified under paragraph (b)(14).

(14) An alternative groundwater protection standard for constituents for which MCLs have not been established may be approved by the department. These groundwater protection standards shall be appropriate health-based levels that satisfy the following criteria:

(A) The level is derived in a manner consistent with environmental protection agency guidelines for assessing the health risks of environmental pollutants, 51 Federal Register 33992, 34006, 34014, 34028, dated September 24, 1986;

(B) the level is based on scientifically valid studies conducted in accordance with the toxic substances control act good laboratory practice standards, 40 CFR part 792, as in effect on July 1, 1992, or equivalent;

(C) for carcinogens, the level represents a concentration associated with an excess lifetime cancer-risk level, due to continuous lifetime exposure, within the 1×10^{-4} to 1×10^{-6} range; and

(D) for systemic toxicants, the level represents a concentration to which the human population, including sensitive subgroups, could be exposed on a daily basis which is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this paragraph, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

(15) A standard in lieu of paragraph (b)(13) may be designated by the director while an alternative standard is being developed pursuant to paragraph (b)(14).

(c) Appendices.

APPENDIX I

GEOCHEMICALS
Alkalinity
Calcium
Chemical Oxygen Demand (COD)
Chloride
Nitrogen (Ammonia)
Potassium, dissolved
Sodium, dissolved
Sulfate
Total Dissolved Solids (TDS)

VOLATILE ORGANICS
Acetone
Benzene*
Bromodichloromethane
Bromomethane
Bromoform
2-Butanone
Carbon Disulfide
Carbon tetrachloride
Chlorobenzene
Chlorethane
2-Chloroethylvinyl ether
Chloroform
Chloromethane
Dibromochloromethane
1,1-Dichloroethane
1,2-Dichloroethane*
1,1-Dichloroethene*
trans-1,2-Dichloroethene
1,2-Dichloropropane*
cis-1,3-Dichloropropene
Trans-1,3-Dichloropropene
Ethylbenzene
2-Hexanone
4-Methyl-2-pentanone
Methylene chloride
Styrene*
Tetrachlorethene*
Toluene*
Total Xylenes*
1,1,2,2-Tetrachloroethane
1,1,1-Trichloroethane*
1,1,2-Trichloroethane
Trichloroethene*
Vinyl acetate
Vinyl chloride*
*MCL promulgated

APPENDIX II

GEOCHEMICALS
Alkalinity
Calcium
Chemical Oxygen Demand (COD)
Chloride
Nitrogen (Ammonia)
Potassium, dissolved
Sodium, dissolved
Sulfate
Total Dissolved Solids (TDS)

METALS
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Copper
Lead
Nickel
Selenium
Silver
Thallium
Vanadium

Zinc

POLYNUCLEAR AROMATIC HYDROCARBONS

Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(j)fluoranthene
Benzo(k)fluoranthene
Benzo(ghi)perylene
Chrysene
Dibenz(a,h)acridine
Dibenz(a,j)acridine
Dibenzo(a,h)anthracene
7H-Dibenzo(c,g)carbazole
Dibenzo(a,e)pyrene
Dibenzo(a,h)pyrene
Dibenzo(a,i)pyrene
Fluoranthene
Fluorene
Indeno(1,2,3-cd)pyrene
3-Methylcholanthrene
Naphthalene
Phenanthrene
Pyrene

CHLORINATED HYDROCARBONS

Benzal chloride
Benzotrichloride
Benzyl chloride
2-Chloronaphthalene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane
Hexachlorocyclopentadiene
Hexachloroethane
Tetrachlorobenzenes
1,2,4-Trichlorobenzene
Pentachlorohexane

ORGANOPHOSPHORUS PESTICIDES

Azinphos methyl
Bolstar
Chlorpyrifos
Coumaphos
Demeton-O
Demeton-S
Diazinon
Dichlorvos
Disulfoton
Ethroprop
Fensulfothion
Fenthion
Merphos
Mevinphos
Naled
Parthion methyl
Phorate
Ronnel
Stirophos (Tetrachlorvinphos)
Tokuthion (Prothiofos)
Trichloronate

CHLORINATED HERBICIDES

2,4-D
2,4-DB
2,4,5-T
2,4,5-TP (silvex)
Dalapon
Dicamba
Dichloroprop
Dinoseb
MCPA
MCPP

VOLATILE ORGANICS

Acetone
Benzene
Bromodichloromethane

Bromomethane
Bromoform
2-Butanone
Carbon Disulfide
Carbon tetrachloride
Chlorobenzene
Chlorethane
2-Chloroethylvinyl ether
Chloroform
Chloromethane
Dibromochloromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
trans-1,2-Dichloroethene
1,2-Dichloropropane
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Ethyl benzene
2-Hexanone
4-Methyl-2-pentanone
Methylene chloride
Styrene
Tetrachloroethene
Toluene
Total Xylenes
1,1,2,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Vinyl acetate
Vinyl chloride

VOLATILE ORGANICS

Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromoethane
n-Butylbenzene
sec-Butybenzene
tert-Butylbenzene
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
2-Chlorotoluene
4-Chlorotoluene
Dibromochloromethane
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
Dibromomethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
Dichlorodifluoromethane
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethene
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
1,2-Dichloropropane
1,3-Dichloropropane
2,2-Dichloropropane
1,1-Dichloropropene
Ethylbenzene
Hexachlorobutadiene
Isopropylbenzene
p-Isopropyltoluene
Methylene chloride
Naphthalene
n-Propylbenzene
Styrene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
1,2,3-Trichlorobenzene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Trichlorofluoromethane
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,3,5-Trimethylbenzene

Vinyl chloride
o,m,p-Xylene

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

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 cross-media 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.)

28-29-121. Closure requirements.

(a) Upon ceasing to receive waste, the unit shall be covered by a final cover consisting of a low permeability layer overlaid by a final protective layer constructed in accordance with the requirements of this regulation.

(b) Not later than 30 days after placement of the final lift of solid waste, closure activities shall begin, except as provided in subsection (c) of this regulation.

(c) The deadline for construction of the final cover may be extended by the director if:

(1) the unit has remaining capacity and there is a reasonable likelihood that the MSWLF unit will receive additional wastes;

(2) leachate is to be recirculated for a period after final receipt of waste in accordance with provisions in K.A.R. 28-29-104(i)(6); or

(3) the owner or operator demonstrates to the department that initiation of closure will, of necessity, take longer than 30 days.

(d) For any unit receiving an extension of the closure deadline as provided in subsection (c), it may be required by the director that the owner or operator comply with some or all of the provisions for intermediate cover in K.A.R. 28-29-108(c).

(e) For each MSWLF receiving waste after October 9, 1993, the low permeability layer shall consist of one of the following:

(1) a geomembrane underlaid by 0.45 meters (18 inches) of compacted soil with a permeability of 1 X 10^{-5} centimeters per second or less if geomembrane is used in the bottom liner system; or

(2) the lesser of:

(i) 0.45 meters (18 inches) of compacted soil with a permeability less than or equal to the bottom liner system or natural subsoils; or

(ii) 0.45 meters (18 inches) of compacted soil with a permeability of 1 X 10^{-5} centimeters per second or less.

(f) If a geomembrane is used in the low permeability layer, it shall be constructed in accordance with the following standards.

(1) The geomembrane shall have strength to withstand the normal stresses imposed by the waste stabilization process.

(2) The geomembrane shall be placed over a prepared base free from sharp objects and other materials that may caused damage.

(3) The effects of landfill gas below the geomembrane shall be addressed.

(4) The effect of drainage through the final protective cover onto the geomembrane shall be addressed.

(g) The final protective layer shall be constructed in accordance with the following standards.

(1) The final protective layer shall cover the entire low permeability layer.

(2) The thickness of the final protective layer shall be at least as thick as the frost penetration depth at the landfill site and shall minimize root penetration of the low permeability layer.

(3) The final protective layer shall consist of soil material capable of supporting vegetation.

(h) The final protective layer shall be placed as soon as possible after placement of the low permeability layer to prevent desiccation, cracking, freezing or other damage to the low permeability layer.

(i) The owner or operator shall prepare a written closure plan that describes the steps necessary to close each MSWLF unit at any point during its active life in accordance with the cover design requirements. The closure plan, at a minimum, shall include the following information:

(1) plans for the final contours, type and depth of cover material, landscaping, and access control;

(2) an estimate of the largest area of the MSWLF unit ever requiring a final cover at any time during the active life;

(3) an estimate of the maximum inventory of wastes ever on-site over the active life of the MSWLF facility;

(4) final surface water drainage patterns and run-off retention basins;

(5) plans for the construction of liners, leachate collection and treatment systems, gas migration barriers or other gas controls;

(6) cross-sections of the site that delineate the disposal or storage locations of wastes. The cross-sections shall depict liners, leachate collection systems, the waste cover, and other applicable details;

(7) removal of all solid wastes from processing facilities; and

(8) a schedule for completing all closure activities.

(j) The closure plan shall be prepared not later than the effective date of this part, or by the initial receipt of waste, whichever is later, and shall be submitted to the department.

(k) A minimum of 60 days prior to beginning closure of each MSWLF unit, an owner or operator shall notify the department of the intent to close a unit.

(l) The owner or operator shall complete closure activities of each unit in accordance with the closure plan within 180 days following the beginning of closure. Extensions of the closure period may be granted by the director if the owner or operator demonstrates that:

(i) closure will, of necessity, take longer than 180 days; and

(ii) all steps have been taken and will continue to be taken to prevent threats to human health and the environment from the unclosed unit.

(m) Following closure of each MSWLF unit, the owner or operator shall submit a certification to the department. The certification shall be signed by an independent registered professional engineer, or approved by the director, and shall verify that closure has been completed in accordance with the closure plan.

(n) Following closure of all MSWLF units in a facility, the owner or operator shall perform the following tasks.

(1) The owner or operator shall file a restrictive covenant with the office of register of deeds for the county in which the property is located, pursuant to the requirements of K.A.R. 28-29-20. The restrictive covenant shall, in perpetuity, notify any potential purchaser of the property that:

(A) the property has been used as a MSWLF; and

(B) the use of the property is subject to the restricts of the post-closure plan in subsection (p) of this regulation.

(2) The owner or operator shall notify the director that a restrictive covenant has been recorded pursuant to the requirements of paragraph (1) of this subsection.

(o) The owner or operator may request permission from the director to remove the restrictive covenant if all wastes are removed from the facility.

(p) Post-closure care requirements.

(1) Following closure of each MSWLF unit, the owner or operator shall conduct post-closure care. Post-closure care shall be conducted for 30 years, except as provided under paragraph (2) of this subsection, and shall consist of at least the following activities:

(A) maintaining the integrity and effectiveness of any final cover, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(B) maintaining and operating the leachate collection system, pursuant to K.A.R. 28-29-104(h);

(C) monitoring the groundwater in accordance with the requirements of K.A.R. 28-29-113 and maintaining the groundwater monitoring system, if applicable; and

(D) maintaining and operating the gas monitoring system in accordance with the requirements of K.A.R. 28-29-108(e).

(2) The length of the post-closure care period may be increased by the director if the director determines that the lengthened period is necessary to protect human health and the environment.

(3) The owner or operator of each MSWLF unit must prepare a written post-closure plan that includes, at a minimum, the following information:

(A) plans for the post-closure operation and maintenance of liners, leachate and gas collection and treatment systems, cover material, run-off, retention

basins, landscaping, and access control;

(B) plans for monitoring and surveillance activities during post-closure;

(C) name, address, and telephone number of the person or office to contact about the facility during the post-closure period; and

(D) a description of the planned uses of the property during the post-closure period.

(i) Post-closure use of the property shall not disturb the integrity of the final cover, liner or liners, or any other components of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this regulation.

(ii) If the owner or operator demonstrates that disturbance of the final cover, liner or other component of the containment system, including any removal of waste, will not increase the potential threat to human health or the environment, the disturbance may be approved by the director.

(4) The owner or operator shall prepare a post-closure plan not later than the effective date of this regulation, or by the initial receipt of waste, whichever is later, and submit it to the director.

(5) Following completion of the post-closure care period for each MSWLF unit, the owner or operator shall submit a certification to the director. The certification shall be signed by an independent registered professional engineer, or approved by the director, and must verify that post-closure care has been completed in accordance with the post-closure plan. (Authorized by K.S.A. 1993 Supp. 65-3406; implementing K.S.A. 65-3401; effective Oct. 24, 1994.)

Part 8. Financial Requirements

28-29-2101. Financial assurance for closure and postclosure. Reference to the "facility" in these financial assurance regulations shall mean a solid waste disposal area, a solid waste processing facility, or both.

(a) Requirement to provide financial assurance. Each person applying for or holding a permit issued pursuant to K.S.A. 65-3401 *et seq.*, and amendments thereto, shall provide evidence of financial responsibility for the facility for the cost of closure, postclosure, or both, as prescribed by these financial assurance regulations. The owner or operator of the facility shall have financial assurance that is continuous, adequate in amount, available when needed, and legally enforceable.

(b) Financial assurance methods.

(1) Allowable financial assurance methods shall consist of the following:

(A) A funded trust fund;

(B) a surety bond guaranteeing payment or performance;

(C) an irrevocable letter of credit;

(D) an insurance policy;

(E) a corporate or local government financial test;

(F) a corporate or local government financial guarantee; and

(G) use of ad valorem taxing authority for a local government subdivision of the state that owns or operates a solid waste facility other than a municipal solid waste landfill.

(2) Any owner or operator required to provide financial assurance specified in these financial assurance regulations may elect to use a combination of instruments or methods as specified in these regulations, except that a method using a financial instrument guaranteeing performance shall not be used in combination with an instrument guaranteeing payment. Each method used in combination shall satisfy the requirements specified in these financial assurance regulations for its use.

(3) Any board of county commissioners that has established a dedicated fee fund pursuant to K.S.A. 65-3415f, and amendments thereto, may reduce the amount of financial assurance demonstrated by any other allowable method by the current balance

accumulated in the dedicated fee fund at the time that the demonstration is required.

(c) Provider of the financial assurance. The financial assurance shall be provided by one of the following:

(1) The owner or operator;

(2) a guarantor of the owner or operator; or

(3) if the financial assurance is a purchased financial instrument, a financial, insurance, or surety institution meeting the quality and reliability standards suitable to institutions of that type and the standards specified in these financial assurance regulations.

(d) Demonstration of financial assurance, when required. Each owner or operator of the facility shall provide a demonstration of financial assurance to the department at the following times:

(1) Before the facility permit is issued by the department;

(2) before an expansion of permitted area or capacity is approved by the department;

(3) annually during the active life of the facility, on or before the anniversary of the date the permit was issued; and

(4) annually during the required period of postclosure, on or before the annual permit renewal date that was effective during the active life of the facility.

(e) Review of financial assurance demonstrations. Financial assurance demonstrations shall be reviewed by the department and either approved or disapproved. A financial assurance method that has been disapproved by the department shall be replaced with an alternate method as specified in these financial assurance regulations to maintain continuous assurance during the active life of the facility and the required postclosure period. A purchased financial instrument that has been disapproved because of wording or the quality of the issuing institution, or for any other reason, shall be replaced by an instrument acceptable to the department, or by another method as specified in subsection (b) of this regulation, to maintain continuous assurance.

(f) Calculation of required financial assurance. Each owner or operator shall obtain and demonstrate financial assurance for the current estimated cost to provide for closure, postclosure, or both.

(1) The following rules shall be used to determine the area or capacity to be included in the calculation of estimated cost.

(A) If waste is to be removed during closure of a solid waste processing facility, the amount of closure financial assurance shall be calculated as the cost of removing and disposing of the greatest volume of waste allowed by terms and conditions of the permit, and all other costs relevant to certification of final closure, including certification.

(B) If waste is to be left in place in a solid waste disposal area, the amount of closure financial assurance shall be calculated as the cost to complete final closure of the largest area ever to be open at any one time during the active life of the facility. For the purpose of this calculation, "the largest area ever to be open at any one time during the active life" shall be defined as the largest area ever to lack final cover. "Final cover" shall mean cover of the required material and thickness that is graded to final contours and seeded, or otherwise made suitable for the next allowable use, according to the closure plan.

(C) If waste is to be left in place in a solid waste disposal area, the amount of postclosure financial assurance shall be calculated as the following:

(i) The cost to be incurred according to the postclosure plan after final closure has been certified; and

(ii) the cost for any environmental monitoring to care for and maintain the area permitted to receive waste, and any appurtenances, during a postclosure period of 30 years and any extensions of the postclosure period required by the department.

(2) The amount of financial assurance required shall be calculated by applying third-party costs to the

physical actions listed in the closure plan, postclosure plan, or both. The resulting amount shall not be discounted, nor shall any offset for the sale of recoverable materials be subtracted. Third-party costs shall be determined from one or more of the following sources:

(A) Representative costs supplied by the department;

(B) actual invoices paid by the owner or operator for the same or similar work;

(C) written bids from professional contractors having no other financial interest in the facility or its use; or

(D) authoritative costing tables issued by publishers recognized for their research into the costs of the actions to be priced.

(3) If the priced closure plan, postclosure plan, or both, does not include a specific allowance to pay for contingent events, an amount equal to 10 percent of the total cost shall be added for the purpose of determining the amount of financial assurance required.

(g) Evaluation of amount of financial assurance. Upon receipt of the priced closure plan, postclosure plan, or both, from the owner or operator, the plan or plans shall be evaluated by the department to determine if the amounts calculated for determining the amount of financial assurance required are sufficient. The adequacy of physical actions planned and the pricing sources shall be considered in the departmental evaluation. Revisions shall be made by the department in accordance with the evaluation, if the amounts are not sufficient. Each owner or operator shall demonstrate financial assurance equal to the amount accepted or determined by the department.

(h) Annual updates to financial assurance. Each owner or operator shall update the financial assurance amount, on or before the annual renewal date of each permit during the active life of the facility, by recalculating the cost of closure, postclosure, or both, using current dollars, or by the addition of an inflation factor to the amount approved by the department for the prior year.

(1) If any substantial change to physical actions within the closure plan or postclosure plan, or both, has been proposed or approved since the prior year, a new accumulation of the plan costs in current dollars shall be completed, instead of the addition of an annual inflation factor.

(2) If the inflation factor is used, the financial assurance instrument or other method of demonstrating financial assurance shall be adjusted to the updated amount according the following formula:

$$\frac{IPD_y}{IPD_{y-1}} \times FA_{y-1} = FA$$

where:

IPD_y represents the current annual implicit price deflator for the gross domestic product;

IPD_{y-1} represents the previous year's implicit price deflator for the gross domestic product;

FA_{y-1} represents the previous year's approved estimate of closure or postclosure, or both; and

FA represents the current estimated cost of closure or postclosure, or both.

(i) Failure of the financial assurance method, or an inadequate amount of financial assurance. Each owner or operator of a facility who obtains information that a financial assurance instrument or other method in use has failed to meet the standards established by these financial assurance regulations for its use, or that the amount of financial assurance provided has become inadequate for reasons other than general annual price inflation, shall provide alternate or increased financial assurance of the type and within the time periods specified in these financial assurance regulations, but in no event later than 90 days after obtaining the information.

(j) Release from the requirement to provide financial assurance. Each owner or operator shall be released from the requirement to provide financial assurance for

a facility for closure or postclosure, or both, when the owner or operator is released by the department from further obligation to perform closure activities, postclosure activities, or both, at the facility.

(k) Exception for certain closed municipal solid waste landfills. The financial assurance requirements of subsection (a) of this regulation shall not apply to closed municipal solid waste landfills that are exempted from K.A.R. 28-29-101 through K.A.R. 28-29-120 according to the closure dates set forth in K.A.R. 28-29-100.

(l) Exception to the requirement for postclosure financial assurance. Postclosure financial assurance may not be required by the department for a facility containing certain substances left in place after closure, if the care and maintenance costs to be incurred during the required postclosure period are deemed to be minimal and if environmental monitoring during the postclosure period is not required. These substances shall include the following:

(1) Construction and demolition waste;

(2) foundry sand; and

(3) tires.

(m) Exception to the closure plan pricing rules for certain waste tire facilities. Owners or operators of waste tire facilities permitted under K.S.A. 65-3424 through K.S.A.. 65-3424m, and amendments thereto, shall not be subject to the closure plan pricing requirements of subsections (f) and (h) of this regulation.

(n) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec.1;effective February 24, 2000.)

28-29-2102. Financial assurance for corrective action. Reference to the "facility" in these financial assurance regulations shall mean a solid waste disposal area or a solid waste processing facility, or both.

(a) Requirement to provide financial assurance. Each owner or operator of a facility who is required to undertake a corrective action program pursuant to the provisions of K.A.R. 28-29-114, or by order of any court of competent jurisdiction, shall provide evidence of financial responsibility for the cost of corrective action in the manner and form prescribed by these financial assurance regulations. Each owner or operator required to perform corrective action for a facility shall provide and maintain financial assurance that is continuous, adequate in amount, available when needed, and legally enforceable.

(b) Financial assurance methods. Allowable financial assurance methods shall be those specified in K.A.R. 28-29-2101(b).

(c) Provider of the financial assurance. The financial assurance for corrective action shall be supplied by one of the providers specified in K.A.R. 28-29-2101(c).

(d) Demonstration of financial assurance, when required. Each owner or operator required to undertake a program of corrective action shall provide a demonstration of financial assurance to the department at the following times:

(1) Within 120 days following whichever of the following dates is earliest:

(A) The date that the selected remedy was filed with the department by the owner or operator according to the provisions of K.A.R. 28-29-114(b); or

(B) the date that the secretary informed the facility of the amount of financial assurance required based on a probable remedial cost estimate; and

(2) annually during the corrective action period, on or before the anniversary of the date the first financial assurance demonstration was required.

(e) Review of financial assurance demonstrations. Financial assurance demonstrations shall be reviewed by the department and either approved or disapproved. A financial assurance method that has been disapproved by the department shall be replaced with

an alternate method as specified in these financial assurance regulations to maintain continuous assurance during the corrective action period. A purchased financial instrument that has been disapproved because of wording or the quality of the issuing institution, or for any other reason, shall be replaced by an instrument acceptable to the department or by another method listed in K.A.R. 28-29-2101(b)(1), to maintain continuous assurance.

(f) Calculation of required financial assurance.

(1) The financial assurance requirement shall be based upon the total cost accumulated in a detailed estimate of the cost of the corrective action plan for implementing the remedy approved or specified by the department according to K.A.R. 28-29-114(b).

(2) A probable remedial cost estimate for the financial assurance required to implement corrective measures at the facility may be developed by the secretary before a remedy is submitted by the facility and approved by the department.

(3) If a trust fund is selected to provide the financial assurance, a separate estimate shall be made of the cost to be incurred during each year of the corrective action plan.

(4) The corrective action plan shall be priced using one or more of the sources specified in K.A.R. 28-29-2101(f)(2).

(5) The total amount of the corrective action plan shall not be discounted, nor shall any offset for the sale of recoverable materials be subtracted.

(6) If the amount does not include a specific allowance to pay for contingent events, an amount equal to 10 percent of the total cost shall be added for the purpose of determining the amount of financial assurance required.

(g) Evaluation of amount of financial assurance. Upon receipt of a priced corrective action plan from the owner or operator, the plan shall be evaluated by the department to determine if the amounts calculated are sufficient for determining the amount of financial assurance required, or revisions shall be made by the department in accordance with the evaluation if the amounts are not sufficient. The adequacy of the physical actions planned and the pricing sources shall be considered in the departmental evaluation. Each owner or operator shall demonstrate financial assurance equal to the amount accepted or determined by the department.

(h) Annual updates to financial assurance. Each owner or operator shall update the financial assurance amount on or before the anniversary of the date the first financial assurance demonstration was required by this regulation. The financial assurance amount shall be updated by using of one or more of the methods specified in K.A.R. 28-29-2101(h).

(i) Failure of the financial assurance method, or an inadequate amount of financial assurance. Each owner or operator required to process a corrective action plan who obtains information that a financial assurance instrument or other method in use has failed to meet the standards established by these financial assurance regulations for its use, or that the amount of financial assurance provided has become inadequate for reasons other than general annual price inflation, shall provide alternate or increased financial assurance of the type and within the time periods specified in these financial assurance regulations, but in no event later than 90 days after obtaining the information.

(j) Release from the requirement to provide financial assurance. Each owner or operator required to provide financial assurance for corrective action shall be released from the requirement when the department or any court having jurisdiction releases the owner or operator from further obligation to perform corrective action activities at the facility.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2103. Financial assurance provided by a funded trust fund. (a) Funded trust fund. Any owner or operator of a solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by establishing a trust fund that conforms to the requirements of this regulation and by submitting a copy of the trust agreement, with an original signature, to the department.

(1) Each owner or operator of a new facility shall submit to the department a copy of the trust agreement, with an original signature, for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit to the department a copy of the trust agreement, with an original signature, within the times specified in K.A.R. 28-29-2102(d).

(3) The trustee financial institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) have the authority to act as trustee for the facility in the state of Kansas; and

(C) be a trust operation regulated and examined by a state or federal agency.

(b) Form of the trust agreement.

(1) The wording of the trust agreement shall be identical to the wording in the document provided by the department.

(2) The trust agreement shall establish a trust account, referred to in this regulation as "the fund," for the receipt of annual payments into the fund and receipt of the earnings on the accumulated amount.

(3) Each owner or operator shall update schedule A of the trust agreement within 60 days following a change in the amount of the current closure, postclosure, or corrective action cost estimate covered by the agreement.

(c) Payments into the fund for closure and postclosure. The owner or operator shall annually make payments into the fund for closure or postclosure, or both, over the estimated life of the facility as approved by the department. The approved facility life shall be referred to in this regulation as the "pay-in period." The pay-in period shall be changed each time a new facility life is determined by the owner or operator and approved by the department. The pay-in period shall not exceed 30 years from the date a new facility is permitted or the date these financial assurance regulations become effective, whichever is later. Payments into the fund for closure or postclosure, or both, shall be calculated as follows:

(1) The first payment into the fund for a new facility shall be made before the permit is issued by the department. The first payment shall be equal to the current, approved estimate of closure or postclosure costs, or both, divided by the number of years in the pay-in period.

(2) The owner or operator shall make subsequent payments on or before the due date for each annual permit renewal. The amount of each subsequent payment shall be calculated by the following formula:

$$\frac{CE - CV}{Y} = P$$

where:

CE represents the current cost estimate for closure or postclosure, or both;

CV represents the current value of the fund. The current value of the fund shall be the current tax cost of the fund as reported in the trustee report unless market value is lower, in which case the lower value shall be used in the formula;

Y represents the number of years remaining in the pay-in period; and

P represents the amount of the required payment.

(3) Any owner or operator may accelerate payments into the fund or may deposit the full amount of the current estimate for closure or postclosure costs,

or both, at the time the fund is established. After making the accelerated or full payments, the owner or operator shall maintain the fund at least in the amount it would have been if initial and annual payments had been made according to the requirements in paragraphs (c)(1) and (c)(2) of this regulation.

(4) If the owner or operator establishes a trust fund for closure, postclosure, or both, after having used another allowable method of providing financial assurance, the first payment into the fund shall be at least the amount that the fund would have contained if the trust fund had been used as the first method.

(5) After the pay-in period is complete, whenever the current approved cost estimate for closure or postclosure, or both, is changed, the owner or operator shall compare the new estimate with the trustee's most recent report of the current value of the fund and, if the fund is deficient, shall deposit the amount of deficiency on or before the date required by K.A.R. 28-29-2101(i).

(6) After the pay-in period is complete, if the value of the fund exceeds the current approved estimate of closure or postclosure costs, or both, or if the owner or operator substitutes another approved method of providing financial assurance, the owner or operator may submit a request to the department for return of the excess amount. The request shall be evaluated by the department. The requested amount shall be approved, changed, or denied. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(d) Reimbursement from the closure or postclosure fund. After beginning final closure, and annually during the postclosure period, the owner or operator or another authorized person may request reimbursement for the costs incurred in carrying out the actions required by the approved closure or postclosure plan, or both. The reimbursement request shall include documentation for the costs to be reimbursed from the fund. The request shall be evaluated by the department. Reimbursement may be authorized by the department to the extent that, after the reimbursement is issued by the trustee, the fund still contains the amount required to complete closure or postclosure, or both. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(e) Payments into the fund for corrective action. Each owner or operator shall make payments into the fund for corrective action annually during the first half of the approved corrective action period. The first half of the corrective action period shall be the "pay-in period." The pay-in period shall be changed at any time that a new corrective action period is determined by the owner or operator and approved by the department. The pay-in period shall not exceed seven years beginning on the date these financial assurance regulations become effective, or 120 days after the date determined by K.A.R. 28-29-2102(d), whichever is later. Payments into the fund for corrective action shall be calculated as follows:

(1) The first payment into the fund shall be at least in the amount of half of the approved estimate of the total cost of corrective action for the entire corrective action period, divided by the number of years in the pay-in period.

(2) The amount of each subsequent payment shall be determined by the following formula:

$$\frac{RB - CV}{Y} = P$$

where:

RB represents the required balance, defined as the total amount of corrective action cost estimated to be incurred in the last half of the corrective action period;

CV represents the current value of the trust fund. The current value of the fund shall be the current tax cost of the fund as reported in the trustee report unless market value is lower, in which case market value shall be used in the formula;

Y represents the number of years remaining in the

pay-in period; and

P represents the amount of the required payment.

(3) Any owner or operator may accelerate payments into the fund or may deposit the full amount of the required balance at the time the fund is established. After making the accelerated or full payments, the owner or operator shall maintain the fund at least in the amount it would have been if initial and annual payments had been made according to the requirements in paragraphs (e)(1) and (e)(2) of this regulation.

(4) If the owner or operator establishes a corrective action trust fund after having used another allowable method of providing financial assurance, the first payment into the fund shall be at least the amount that the fund would have contained if the trust fund had been used as the first method.

(5) After the pay-in period is complete, whenever the current estimated cost of corrective action for the remaining corrective action period exceeds the amount of the current value of the fund, the owner or operator shall deposit the deficiency on or before the deadline specified in K.A.R. 28-29-2102 (i).

(f) Reimbursement from the corrective action fund. After the pay-in period is complete or after the required balance of the fund is reached, the owner or operator or another authorized person may request reimbursement for the costs incurred in carrying out the actions required by the corrective action plan. The reimbursement request shall include documentation of the costs to be reimbursed from the fund. The request shall be evaluated by the department. Reimbursement may be authorized by the department to the extent that, after the reimbursement is issued by the trustee, the fund still contains the amount required to complete the corrective action plan. The trustee shall make payment from the fund in the amount determined by the department's evaluation.

(g) Termination of the trust agreement. Any owner or operator may request termination of the trust agreement and return of any monies remaining in the fund if any of the following conditions is met:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation to provide financial assurance for closure, postclosure, corrective action, or any combination of these, at the permitted facility.

(3) The owner or operator completes corrective action required by order of any court of competent jurisdiction and is released from further obligation by the court at the permitted facility.

(h) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2104. Financial assurance provided by a surety bond guaranteeing payment. (a) Financial guarantee bond. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a financial guarantee bond that conforms to the requirements of this regulation and by submitting the original bond to the department.

(1) Each owner or operator of a new facility shall submit to the department the bond for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the bond to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The surety institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) have the authority to issue surety bonds in Kansas; and

(C) be listed as an acceptable surety institution on federal bonds.

(b) Form of the financial guarantee bond. The wording of the financial guarantee bond shall be identical to the wording in the document provided by the department. If the penal sum of the bond is increased during the life of the bond, the owner or operator shall provide written acceptance of the new amount, indicated by a signed acceptance placed on the certificate of increase issued by the surety institution. The original signed and accepted certificate of increase shall be filed with the department.

(c) Standby trust fund. Each owner or operator who uses a financial guarantee bond to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original financial guarantee bond. Under the terms of the bond, all payments from the penal sum shall be deposited by the surety institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirements of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103(c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103(b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the financial guarantee bond for closure and postclosure. The financial guarantee bond for closure or postclosure, or both, shall require that the owner or operator perform one of the following:

(1) Fund the standby trust fund in the amount of the penal sum of the bond before beginning final closure of the facility;

(2) fund the standby trust fund in the amount of the penal sum of the bond within 15 days after an administrative order issued by the department to begin closure becomes final, or within 15 days after an order to begin final closure is issued by any court of competent jurisdiction; or

(3) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the department of a notice of cancellation from the surety institution.

(e) Provisions of the financial guarantee bond for corrective action. A financial guarantee bond for corrective action shall require that the owner or operator perform one of the following:

(1) Fund the standby trust fund in the amount of the penal sum of the bond before beginning corrective action at the facility;

(2) fund the standby trust fund in the amount of the penal sum of the bond within 15 days after an administrative order issued by the department to begin corrective action becomes final, or within 15 days after an order to begin corrective action is issued by any court of competent jurisdiction; or

(3) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval for the assurance provided, within 90 days after receipt by both the owner or operator and the department of a notice of cancellation from the surety institution.

(f) Liability of the surety institution. Under terms of the bond, the surety institution shall become liable on the bond obligation if the owner or operator fails to perform as guaranteed by the bond.

(g) Penal sum of the bond. The penal sum of the

bond for closure, postclosure, or both, shall be at least the amount of the current cost estimate for closure, postclosure, or both. The penal sum of the bond for corrective action shall be at least the amount of the current cost estimate for corrective action for the entire corrective action period.

(h) Increase in the penal sum of the bond. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in these financial assurance regulations to cover the increase. Whenever the current cost of closure, postclosure, or corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the penal sum of the bond. The request shall be evaluated by the department, and the amount shall be decreased consistent with the department's evaluation.

(i) Cancellation of the bond by the surety institution. Under terms of the bond, the surety institution may cancel the bond by sending notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days following the date by which the notice of cancellation has been received by both the owner or operator and the department, as evidenced by the return receipts.

(j) Cancellation of the bond by the owner or operator. The owner or operator may request cancellation of the bond from the department if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407; effective February 24, 2000.)

28-29-2105. Financial assurance provided by a surety bond guaranteeing performance. (a) Performance guarantee bond. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a performance guarantee bond that conforms to the requirements of this regulation and by submitting the original bond to the department.

(1) Each owner or operator of a new facility shall submit to the department the bond for closure or postclosure, or both, before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the bond to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The surety institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) have the authority to issue surety bonds in Kansas; and

(C) be listed as an acceptable surety institution on federal bonds.

(b) Form of the performance guarantee bond. The wording of the performance guarantee bond shall be identical to the wording in the document provided by the department. If the penal sum of the bond is increased during the life of the bond, the owner or

operator shall provide written acceptance of the new amount, indicated by a signed acceptance placed on the certificate of increase issued by the surety institution. The original signed and accepted certificate of increase shall be filed with the department.

(c) Standby trust fund. Any owner or operator who uses a performance guarantee bond to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original performance guarantee bond. Under the terms of the bond, all payments from the penal sum shall be deposited by the surety institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirement of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103 (c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103 (b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the performance guarantee bond for closure and postclosure. The performance guarantee bond for closure or postclosure, or both, shall require that the owner or operator perform either of the following:

(1) Perform final closure or postclosure, or both, in accordance with the closure or postclosure plan, or both, and any other requirements of the permit and the department or a court of competent jurisdiction whenever required to do so; or

(2) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the department have received a notice of cancellation from the surety institution.

(e) Provisions of the performance guarantee bond for corrective action. A performance guarantee bond for corrective action shall require that the owner or operator perform either of the following:

(1) Perform corrective action according to the corrective action plan or according to an order from the department or any court of competent jurisdiction whenever required to do so; or

(2) provide alternate financial assurance as specified in these financial assurance regulations and obtain the department's written approval for the assurance provided, within 90 days after the date by which both the owner or operator and the department have received a notice of cancellation from the surety institution.

(f) Liability of the surety institution. Under terms of the bond, the surety institution shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(g) Penal sum of the bond. The penal sum of the bond for closure, postclosure, or both, shall be at least the amount of the current cost estimate for closure or postclosure, or both. The penal sum of the bond for corrective action shall be at least the amount of the current cost estimate for corrective action for the entire corrective period.

(h) Increase in the penal sum of the bond. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, shall either cause the penal sum to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the current cost of closure,

postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the penal sum of the bond. The request shall be evaluated by the department, and the amount shall be decreased consistent with the department's evaluation.

(i) Cancellation of the bond by the surety institution. Under terms of the bond, the surety institution may cancel the bond by sending notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days following the date by which the notice of cancellation has been received by both the owner or operator and the department, as evidenced by the return receipts.

(j) Cancellation of the bond by the owner or operator. The owner or operator may request cancellation of the bond from the department if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(k) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2106. Financial assurance provided by an irrevocable letter of credit. (a) Letter of credit. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a letter of credit that conforms to the requirements of this regulation and by submitting the original letter of credit to the department.

(1) Each owner or operator of a new facility shall submit to the department the letter of credit before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the letter of credit to the department within the times specified in K.A.R. 28-29-2102(d).

(3) The institution issuing the letter of credit shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) be authorized to issue letters of credit in Kansas; and

(C) conduct letter of credit activities that are regulated by an agency of the state or federal government.

(b) Form of the letter of credit. The wording of the letter of credit shall be identical to the wording in the document provided by the department. If the amount of the letter of credit is changed or the expiration date is extended, an original amendment to the letter of credit shall be filed with the department.

(c) Standby trust fund. Any owner or operator who uses a letter of credit to satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, shall also establish a standby trust fund. A copy of the standby trust agreement with an original signature shall be submitted to the department along with the original letter of credit. Under the terms of the letter of credit, all payments from the penal sum shall be deposited by the issuing institution directly into the standby trust fund, in accordance with instructions from the department. The standby trust fund shall conform to the requirements specified in K.A.R. 28-29-2103, except that, until the trust account is funded pursuant to the requirements of this regulation, the following shall not be required:

(1) Payments into the fund as specified in K.A.R. 28-29-2103 (c) or (e);

(2) updates to schedule A of the trust agreement as specified in K.A.R. 28-29-2103(b)(3);

(3) annual valuations as required by the trust agreement; and

(4) notices of nonpayment as required by the trust agreement.

(d) Provisions of the letter of credit. The letter of credit shall be irrevocable and shall be issued for a period of at least one year. The letter of credit shall require that the expiration date be automatically extended for a period of at least one year on the expiration date and on each succeeding expiration date, unless 120 days before the current expiration date the issuing institution notifies both the owner or operator and the department by certified mail of a decision not to extend the expiration date. Under terms of the letter of credit, the 120-day period shall begin on the date by which both the owner or operator and the department have received the notice, as evidenced by the return receipts.

(e) Amount of the letter of credit. The letter of credit for closure, postclosure, or both, shall be issued for at least the amount of the current cost of closure or postclosure, or both, whichever is greater. The letter of credit for corrective action shall be issued for at least the amount of the current cost estimate for corrective action during the entire corrective action period.

(f) Increases in the amount of the letter of credit. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, increases to an amount greater than the amount of the letter of credit, the owner or operator, within 60 days after the increase, shall either cause the amount of the letter of credit to be increased to the new amount and submit evidence of the increase to the department, or obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the current cost of closure, postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the amount of the letter of credit. The request shall be evaluated by the department, and the amount shall be decreased consistent with the department's evaluation.

(g) Failure to perform closure, postclosure, and corrective action. The amount of the letter of credit, in whole or in part, shall be drawn by the department following a determination by the department of either of the following:

(1) That the owner or operator has failed to perform closure, postclosure, or corrective action, or any combination of these, in accordance with the closure, postclosure, or corrective action plan, or any combination of these, when required; or

(2) that the owner or operator has failed to perform according to the terms and conditions of the permit.

(h) Failure to supply alternate financial assurance. If the owner or operator does not establish alternate financial assurance as specified by this regulation and does not obtain written approval for its use from the department within 90 days after the date by which both the owner or operator and the department have received a notice from the issuing institution that it has decided not to renew the letter of credit beyond the current expiration date, the amount of the letter of credit may be drawn by the department.

(i) Termination of the letter of credit by the owner or operator. The owner or operator may request termination of the letter of credit if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure or postclosure, or both, at the facility.

(3) The owner or operator completes required

corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(j) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2107. Financial assurance provided by insurance. (a) Insurance policy. Any owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining an insurance policy that conforms to the requirements of this regulation and by submitting to the department a copy of the insurance policy with an original signature, including all riders and endorsements, and an insurance certificate.

(1) The owner or operator of a new facility shall submit the insurance policy, riders, endorsements, and certificate to the department before the permit is issued by the department.

(2) Each owner or operator required to provide financial assurance for a corrective action plan shall submit the insurance policy, riders, endorsements, and certificate to the department within the times specified in K.A.R. 28-29-2102 (d).

(3) The insuring institution shall meet the following criteria:

(A) Be unrelated to the owner or operator;

(B) be licensed to transact the business of insurance by an agency of a state; and

(C) be listed as a surplus or excess lines carrier in Kansas.

(b) Form of the insurance certificate. The wording of the insurance certificate shall be identical to the wording in the document provided by the department.

(c) Amount of insurance. The insurance policy shall be issued for a face amount at least equal to the current cost estimate for closure or postclosure, or both, or at least in the amount of the current cost estimate for corrective action for the entire corrective action period, exclusive of legal defense costs. The term "face amount" shall mean the total amount the insurer is obligated to pay under the policy. Actual payments under the policy by the insurer shall not change the face amount, although the future liability of the insurer shall be lowered by the amount of the payments.

(d) Provisions of the insurance policy. An insurance policy issued for closure, postclosure, corrective action, or a combination of these, shall guarantee that funds are available to pay for the actions required by the closure plan, postclosure plan, corrective action plan, or any combination of these, whenever required. The policy shall also guarantee that once final closure, postclosure, corrective action, or any combination of these, begins, the insurer will be obligated to disburse funds up to the face amount of the policy, at the direction of the department. The insurer shall not exercise discretion to determine whether the expenses incurred for closure, postclosure, corrective action, or any combination of these, are ordinary, necessary, or prudent, if disbursement is required by the department.

(e) Reimbursement of expenditures. After closure, postclosure, or corrective action, or any combination of these, has begun, an owner or operator or any other authorized person may request reimbursement of expenditures by submitting itemized statements with documentation to the department. The itemized statements shall be evaluated by the department. The expenditures listed shall be approved or disapproved by the department. After evaluating the itemized statements, payment from the insurer for approved expenditures may be authorized by the department if the remaining face amount of the insurance policy is sufficient to cover any remaining costs of closure, postclosure, corrective action, or any combination of these. If the department believes that future costs of closure, postclosure, corrective action, or any

combination of these, will exceed the remaining face amount of the policy, authorization for payment may be withheld by the department.

(f) Requirement to maintain the insurance policy in force. The owner or operator shall maintain the insurance policy for closure, postclosure, corrective action, or any combination of these, in force until the department consents, in writing, to its termination. Failure to pay the premium when due, without substitution of alternate financial assurance as specified by K.A.R. 28-29-2101(b), shall constitute a violation of these regulations. The owner or operator shall be in violation if the department receives notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than on the date the policy is actually terminated.

(g) Assignment of the insurance to successive owners or operators. Each policy of insurance shall contain a provision allowing assignment of the policy to a successor owner or operator. This assignment may be conditional upon consent of the insurer, which shall not be unreasonably withheld.

(h) Cancellation of the insurance by the insurer. The policy of insurance for closure, postclosure, corrective action, or any combination of these, shall stipulate that the insurer not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to both the owner or operator and the department. The cancellation, termination, or failure to renew shall not occur during the 120 days beginning with the date by which both the owner or operator and the department have received notice, as evidenced by the return receipts. Cancellation, termination, or failure to renew shall not occur, and the policy shall remain in full force and effect if, on or before the date of expiration, one or more of the following events occur:

(1) The department determines the facility has been abandoned.

(2) The facility permit is terminated or revoked by the department, or a new permit is denied.

(3) The commencement of closure, postclosure, or corrective action, or any combination of these, activities is required by the department or any court of competent jurisdiction.

(4) The owner or operator is named as a debtor in a voluntary or involuntary proceeding under any state or federal bankruptcy law.

(5) The owner or operator fails to provide alternative financial assurance in a form and amount acceptable to the department.

(6) The premium due is paid.

(i) Increased cost estimates. During the active life of the facility, whenever the current cost estimate of closure, postclosure, corrective action, or of any combination of these, increases to an amount greater than the face amount of the insurance policy, the owner or operator, within 60 days after the increase, shall either cause the face amount of the policy to be increased to an amount at least equal to the current cost estimate of closure, postclosure, corrective action, or any combination of these, and submit evidence of the increase to the department, or shall obtain other financial assurance as specified in K.A.R. 28-29-2101(b) to cover the increase. Whenever the estimated cost of closure, postclosure, corrective action, or any combination of these, decreases, the owner or operator may request approval from the department to decrease the face amount of the policy. The request shall be evaluated by the department, and a decrease in the amount shall be allowed by the department, consistent with its evaluation.

(j) Annual adjustments to the face amount of the policy. Beginning on the date that liability to make payments pursuant to a policy for postclosure begins, the insurer shall annually increase the face amount of the

policy. This increase shall be based on the face amount of the policy, less any payments made exclusive of legal defense costs, multiplied by an amount equivalent to 85 percent of the most recent investment rate or 85 percent of the equivalent coupon-issue yield rate announced by the U.S. department of the treasury for 26-week treasury securities.

(k) Termination of the insurance by the owner or operator. The owner or operator may request cancellation of the insurance policy from the department if either of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department or any court of competent jurisdiction from further obligation for closure, postclosure, corrective action, or any combination of these, at the facility.

(l) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2108. Financial assurance provided by the corporate financial test. (a) Corporate financial test. Any corporate owner or operator of a permitted solid waste disposal area or processing facility may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by passing a financial test based on the current financial condition of the permitted corporation as specified in this regulation. Related corporations may not be summed or otherwise combined for the purpose of the financial test, but majority-owned subsidiary corporations of the permitted corporation may be consolidated.

(b) The financial component.

(1) The owner or operator shall satisfy one of the following three conditions:

(A) A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB, as issued by Standard & Poor's, or Aaa, Aa, A, or Baa, as issued by Moody's;

(B) a ratio of less than 1.5, obtained by dividing total liabilities by net worth; or

(C) a ratio of greater than 0.10, obtained by dividing the sum of net income plus depreciation, depletion, and amortization, minus $10 million, by total liabilities.

(2) The tangible net worth of the owner or operator shall be greater than either of the following:

(A) The sum of current closure, postclosure, and corrective action cost estimates and any other environmental obligations, including guarantees, covered by the financial test plus $10 million; or

(B) $10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities in the financial statements, if all of the current closure, postclosure, and corrective action costs and any other environmental obligations covered by the financial test are recognized as liabilities in the owner's or operator's audited annual financial statements.

(3) The owner or operator shall have assets located in the United States amounting to at least the sum of current closure, postclosure, and corrective action cost estimates and any other environmental obligations or guarantees covered by the financial test as described in subsection (d) of this regulation.

(c) Record keeping and reporting requirements.

(1) The owner or operator shall place a copy of the following items in the facility's operating record and file the originals with the department:

(A) A letter signed by the owner's or operator's chief financial officer that is identical to the form provided by the department and that meets the following criteria:

(i) Lists all the current cost estimates for closure, postclosure, and corrective action and any other environmental obligations or guarantees covered by any

financial test under state or federal laws and regulations in any jurisdiction; and

(ii) provides evidence demonstrating that the permitted corporate entity meets the requirements of the financial component of subsection (b) of this regulation;

(B) a copy of the permitted corporate entity's most recent corporate annual financial statements containing a report of independent certified public accountants, including an unqualified opinion. An adverse opinion, disclaimer of opinion, or qualified opinion shall be cause for the department to disapprove use of the corporate financial test. A qualified opinion may be evaluated by the department. Use of the financial test may be approved or disapproved by the department based on its evaluation;

(C) a special report of independent certified public accountants based on applying agreed-upon procedures engaged in accordance with professional auditing standards and stating the following:

(i) The accountant has compared the data in the chief financial officer's letter that is specified as coming from the most recent year-end audited financial statements to the audited financial statements; and

(ii) in connection with this procedure, the accountant found the data to be in agreement; and

(D) if the chief financial officer's letter provides a demonstration that the permitted corporate entity has assured environmental obligations in the manner provided in paragraph (b)(2)(B) of this regulation, a special report of independent certified public accountants that meets the following criteria:

(i) Provides verification that all of the environmental obligations covered by the financial test have been recognized as liabilities in the most recent annual financial statements;

(ii) describes the methods used to measure and report on these obligations; and

(iii) provides verification that the tangible net worth of the permitted corporate entity is at least $10 million plus the amount of any guarantees provided.

(2) After the initial placement of the items listed in paragraph (c)(1) of this regulation in the facility operating record and the initial filing of the originals with the department, the owner or operator shall annually update the information in the operating record and file the updated originals with the department. The updated information shall be placed in the operating record and filed with the department within 90 days following the close of the owner's or operator's most recently completed fiscal year.

(3) The owner or operator shall no longer be required to submit the items specified in paragraph (c)(1) of this regulation or otherwise comply with the requirements of this regulation if any of the following occurs:

(A) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(B) The owner or operator is released by the department from further obligation for closure, or postclosure, or both, at the facility.

(C) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(4) If the owner or operator determines that the permitted corporate entity no longer meets the requirements of subsection (b) of this regulation, the owner or operator shall, within 120 days following the owner's or operator's most recent fiscal year end, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department for its use.

(5) Based on the department's reasonable belief that the owner or operator may no longer meet the requirements of subsection (b) of this regulation, the owner or operator may be required by the department at any time to provide reports of its financial condition,

including or in addition to current financial test documentation as specified in subsection (c) of this regulation, for evaluation. If the department evaluation results in a determination that the owner or operator no longer meets the requirements to use the financial test, the owner or operator shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b).

(d) Calculation of costs to be assured. Each owner or operator using the corporate financial test to provide financial assurance for closure, postclosure, and corrective action shall combine the current cost estimates for the permitted facility with all other environmental obligations or guarantees also assured by any financial test in any local, state, federal, or foreign jurisdiction. The combined environmental cost shall then be used in the financial test calculations provided to the department by the owner or operator. The environmental obligations of consolidated subsidiary corporations that are assured by the financial test shall also be included in the combined environmental obligations covered by the test.

(e) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2109. Financial assurance provided by the corporate guarantee. (a) Corporate guarantee. Any owner or operator of a permitted solid waste disposal area or processing facility may meet the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a written guarantee for closure, postclosure, or corrective action costs, or any combination of these as specified in this regulation.

(1) The guarantor shall comply with the following:

(A) The requirements for owners or operators using the corporate financial test as specified in K.A.R. 28-29-2108(b);

(B) the record keeping and reporting requirements in K.A.R. 28-29-2108(c); and

(C) the terms of the guarantee.

(2) The guarantor shall be one of the following:

(A) The direct or higher-tier parent corporation of the owner or operator; or

(B) a corporation having the same parent corporation as the owner or operator.

(b) Form of the corporate guarantee. The guarantor shall provide a written guarantee that is worded identically to the document provided by the department.

(c) Effective date of the guarantee. A guarantee of closure, postclosure, or both, for a new permit shall be in force before the permit is issued by the department. A guarantee for corrective action shall be in force within the times specified in K.A.R. 28-29-2102 (d).

(d) Record keeping and reporting requirements. Copies of the guarantee, with original signatures, shall be placed in the facility operating record of the owner or operator and filed with the department, accompanied by the documents specified for use by the owner or operator in K.A.R. 28-29-2108(c), that shall be completed using the financial information and reports of the guarantor corporation. These documents shall be updated and filed annually.

(e) Consideration for the guarantee. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor's chief financial officer shall describe the value received in consideration for the guarantee.

(f) Provisions of the guarantee. The terms of the written guarantee shall specify the following remedies:

(1) If the owner or operator fails to perform closure, postclosure, corrective action, or any combination of these, for the permitted facility covered by the guarantee when required by the department or any court of competent jurisdiction, the guarantor shall perform either of the following remedies:

(A) Perform or pay a third party to perform closure, postclosure, corrective action, or any combination of

these, as required by the department or any court of competent jurisdiction; or

(B) establish a fully funded trust fund as specified in K.A.R. 28-29-2103, in the name of the owner or operator, in the amount of the current cost estimate for closure, postclosure, corrective action, or any combination of these, whichever is greatest.

(2) The guarantee shall remain in effect unless the guarantor sends prior notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days beginning on the date by which both the owner or operator and the department have received the notice of cancellation, as evidenced by the return receipts.

(3) If the guarantee is canceled, the owner or operator shall, within 90 days following the date by which both the owner or operator and the department have received the cancellation notice, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain the approval of the department for its use. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide the alternate financial assurance in the name of the owner or operator within 120 days following the date by which both the department and the owner or operator have received the cancellation notice.

(g) Failure of the guarantee. If the corporate guarantor no longer meets the requirements of K.A.R. 28-29-2108(b), the owner or operator shall, within 90 days, obtain alternate financial assurance and obtain the approval of the department for its use. If the owner or operator fails to provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) within the 90-day period, the guarantor shall, within the next 30 days, provide the alternate financial assurance in the name of the owner or operator.

(h) Release of the guarantee. The owner or operator shall be no longer required to meet the requirements of this regulation if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure, postclosure, or both, at the permitted facility.

(3) The owner or operator completes required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(i) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2110. Financial assurance provided by the local government financial test. (a) Local government financial test. Each owner or operator of a permitted solid waste disposal area or processing facility that is a local government subdivision of the state of Kansas may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, for the closure, postclosure, or corrective action costs, or any combination of these, for a municipal solid waste landfill by use of a local government financial test as specified in this regulation.

(b) Definitions. The following terms used in this regulation shall be defined as specified below:

(1) "Annual debt service" means the principal and interest due on outstanding long-term debt during a stated time period, typically the current fiscal year, and payments on capital lease obligations during the same period.

(2) "Cash plus marketable securities" means all the cash and marketable securities held by the local government on the last day of a fiscal year but shall exclude the following:

(i) Cash and marketable securities designated to satisfy past obligations; and

(ii) cash and investments held in fiduciary funds.

(3) "Current year" means the most recently completed fiscal year.

(4) "Deficit" means total annual revenues minus total annual expenditures.

(5) "Long-term debt issued in the current year" means the amount of principal borrowing actually received during the current year from the issue of obligations due more than one year from the date of issue but shall exclude the following:

(i) The amount of capital lease liability incurred during the year; and

(ii) the proceeds of any long-term borrowing in the current year that remains in the capital projects fund at year's end.

(6) "Nonroutine capital expenditures" means capital expenditures of the capital projects fund and expenditures identified as capital outlays or asset additions in the audited annual financial statements of other governmental funds and enterprise funds.

(7) "Total annual expenditures" means the total of all expenditures but shall exclude the following:

(i) Debt principal repayments;

(ii) nonroutine capital expenditures; and

(iii) the expenditures of fiduciary or other trust funds managed by a local government on behalf of specific third parties.

(8) "Total annual revenues" means revenues from all taxes, fees, investment earnings, and intergovernmental transfers but shall exclude the following:

(i) The proceeds from borrowing and asset sales; and

(ii) revenues of fiduciary or other trust funds managed by a local government on behalf of specific third parties.

(c) The financial component.

(1) If the owner or operator has outstanding general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, the bonds shall have a current bond rating of AAA, AA, A, or BBB, as issued by Standard & Poor's, or a current rating of Aaa, Aa, A, or Baa, as issued by Moody's.

(2) If the owner or operator does not have outstanding and rated general obligation bonds, the owner or operator shall meet each of the following financial ratios based on the owner's or operator's most recent audited annual financial statements:

(A) A ratio of cash plus marketable securities divided by total annual expenditures equal to or greater than 0.05, referred to as the "liquidity ratio";

(B) a ratio of annual debt service divided by total annual expenditures equal to or less than 0.20, referred to as the "debt service ratio"; and

(C) a ratio of long-term debt issued in the current year divided by nonroutine capital expenditures of the current year equal to or less than 2.00, referred to as the "use of funds ratio."

(3) The owner or operator's annual financial statements shall be audited by an independent certified public accountant. The financial statements shall be prepared in conformity with one of the following accounting methods:

(A) Generally accepted accounting principles for governments; or

(B) a prescribed basis of accounting that demonstrates compliance with the cash basis and budget laws of the state of Kansas.

(4) An owner or operator who prepares the annual financial statements in conformity with generally accepted accounting principles for governments and uses the financial ratio test method of financial assurance may omit the ratio test stated in paragraph (c)(2)(C) of this regulation.

(5) A local government owner or operator shall not be eligible to use the financial test to assure closure, postclosure, corrective action, or any combination of these, for a municipal solid waste landfill if any of the following conditions exists:

(A) The owner or operator is currently in default on any outstanding general obligation bonds.

(B) The owner or operator has any general obligation bonds outstanding that are rated lower than BBB, as issued by Standard & Poor's, or Baa, as issued by Moody's.

(C) The owner or operator operated at a deficit equal to or greater than five percent of the total annual revenue in each of the two most recently completed fiscal years.

(D) The owner or operator receives an adverse opinion, disclaimer of opinion, or qualification of opinion in the report of independent certified public accountants accompanying the audited financial statements for the most recently completed fiscal year. A qualified opinion may be evaluated by the department. Use of the financial test may be approved or disapproved by the department based on its evaluation.

(d) Public notice component. The local government owner or operator shall place a reference to the cost of closure, postclosure, corrective action, or any combination of these, that is assured by the local government financial test in its comprehensive annual financial report or other audited annual financial report during each year in which the owner or operator is required to provide financial assurance by these financial assurance regulations. Disclosure shall be made in a note attached to the audited annual financial statements and shall include the following:

(1) The nature and source of the requirements to conduct closure, postclosure, corrective action, or any combination of these;

(2) the liability reported or calculated at the balance sheet date;

(3) the estimated total cost of closure, postclosure, corrective action, or any combination of these, remaining to be recognized following the reported balance sheet date;

(4) the percentage of landfill capacity on the reported balance sheet date;

(5) the estimated remaining landfill life in years, or the estimated period of corrective action remaining; and

(6) the method projected for use or the method currently in use to fund the actual costs of closure, postclosure, corrective action, or any combination of these, when required.

(e) Record keeping and reporting requirements.

(1) The owner or operator shall place a copy of the following items in the facility's operating record and shall file the originals with the department:

(A) A letter signed by the local government's chief financial officer that is identical to the form provided by the department and that includes the following:

(i) A list of all the current cost estimates covered by a financial test, including the municipal solid waste landfill and any other environmental obligations or guarantees assured by financial test in any jurisdiction;

(ii) a certification that the local government meets the conditions of subsection (c) of this regulation required for use of either the bond rating or the financial ratio method of the local government financial test;

(iii) a certification that the local government has satisfied the public notice component requirements of subsection (d) of this regulation; and

(iv) a certification that the local government has not exceeded the amount eligible to be assured by the financial test according to subsection (f) of this regulation;

(B) a copy of the local government's audited comprehensive annual financial report or other audited annual financial report for the latest completed fiscal year, including the report and opinion of the auditor, who shall be an independent certified public accountant; and

(C) a special report of independent certified public accountants that is based on applying agreed-upon procedures engaged in accordance with professional auditing standards and that identifies the procedures performed and states that the independent accountant

has determined all of the following:

(i) The data used to calculate the financial test ratios in paragraphs (c)(2)(A), (c)(2)(B), and (c)(2)(C) of this regulation were derived from the audited annual financial statements for the most recently completed fiscal year, and the ratios calculated from this data equal or exceed the stated requirements.

(ii) The owner or operator satisfies the requirements of paragraphs (c)(5)(C) and (f)(1) of this regulation.

(iii) The annual financial report has been prepared on a basis of accounting required by paragraph (c)(3) of this regulation and is accompanied by an auditor's opinion satisfying the requirements of paragraph (c)(5)(D) of this regulation.

(2) The items required by paragraph (e)(1) of this regulation shall be placed in the facility operating record to fulfill the requirements of K.A.R. 28-29-108(q)(1)(G) and shall be filed with the department no later than the effective date for a new permit, and also annually before the end of the latest allowable day for filing the annual audited financial report with the Kansas department of administration, director of accounts and reports, without extension, according to the provisions of K.S.A. 75-1124, and amendments thereto.

(3) The local government owner or operator shall satisfy the requirements of the local government financial test at the close of each fiscal year. If the local government no longer meets the requirements of the financial test, it shall obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) within 90 days of discovering the failure or within 210 days following the close of the most recently completed fiscal year, whichever first occurs, and shall obtain approval from the department for its use.

(4) The local government owner or operator shall no longer be required to submit the items specified in paragraph (e)(1) of this regulation or otherwise comply with the requirements of this regulation if either of the following conditions occurs:

(A) The local government substitutes an alternate method or instrument of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains the department's approval for its use.

(B) The local government is released by the department from further obligation for closure, postclosure, corrective action, or any combination of these, at the permitted facility.

(5) Additional reports of financial condition may be required by the department from the local government at any time for evaluation. If the department evaluation results in a determination that the local government no longer meets the requirements of the local government financial test, the local government shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) within 90 days following notice to the local government from the department.

(f) Calculation of costs to be assured.

(1) The portion of closure, postclosure, and corrective action costs that an owner or operator may assure by the local government financial test shall be determined as follows:

(A) If the local government owner or operator does not assure other environmental obligations or guarantees by the financial test, it may assure closure, postclosure, and corrective action costs for the permitted facility up to an amount equaling 43 percent of total annual revenues.

(B) If the local government owner or operator assures other environmental obligations or guarantees in any jurisdiction by the financial test in addition to the closure, postclosure, and corrective action costs of the permitted facility, it shall add the current cost estimates of the additional obligations or guarantees to the closure, postclosure, and corrective action costs of the permitted facility, and the combined environmental obligations assured shall not exceed 43 percent of total annual revenues.

(2) The local government owner or operator shall provide alternate financial assurance as specified in K.A.R. 28-29-2101(b) for any environmental

obligations or guarantees in excess of 43 percent of total annual revenues.

(g) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2111. Financial assurance provided by a local government guarantee. (a) Local government guarantee. Each owner or operator of a municipal solid waste landfill may satisfy the requirements of K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both, by obtaining a written guarantee for closure, postclosure, or corrective action costs, or any combination of these, that is provided by a local government subdivision of the state of Kansas as specified in this regulation. The guarantor shall comply with the following:

(1) The requirements of the financial component for use of the local government financial test as specified in K.A.R. 28-29-2110(b);

(2) the public notice requirements of K.A.R. 28-29-2110(c);

(3) the record keeping and reporting requirements of K.A.R. 28-29-2110(d); and

(4) the terms of the guarantee.

(b) Form of the local government guarantee. The guarantor shall provide a written guarantee that is worded identically to the document provided by the department.

(c) Effective date of the guarantee. A guarantee of closure or postclosure, or both, for a new permit shall be in force before the permit is issued by the department. A guarantee for corrective action shall be in force within the times specified in K.A.R. 28-29-2102 (d).

(d) Record keeping and reporting requirements. Copies of the guarantee, with original signatures, shall be placed in the facility operating record of the owner or operator and filed with the department, with the documents specified for use by the owner or operator in K.A.R. 28-29-2110(d). The documentation shall be completed using the financial information and reports of the guarantor. These documents shall be updated and filed annually.

(e) Provisions of the guarantee. The terms of the guarantee shall stipulate the following:

(1) If the owner or operator fails to perform closure, postclosure, corrective action, or any combination of these, for the permitted facility covered by the guarantee when required to do so by the department or a court of competent jurisdiction, the guarantor shall perform either of the following:

(A) Perform or pay a third-party to perform closure, postclosure, corrective action, or any combination of these, as required by the department or any court of competent jurisdiction; or

(B) establish a fully funded trust fund as specified in K.A.R. 28-29-2103, in the name of the owner or operator, in the amount of the current cost estimate for closure, postclosure, corrective action, or any combination of these, whichever is greatest.

(2) The guarantee shall remain in effect unless the guarantor sends notice of cancellation by certified mail to both the owner or operator and the department. Cancellation shall not occur, however, during the 120 days beginning on the date by which both the owner or operator and the department have received the notice of cancellation, as evidenced by the return receipts.

(3) If the guarantee is canceled, the owner or operator shall, within 90 days following the date by which both the owner or operator and the department have received the cancellation notice, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide the alternate financial assurance in the name of the owner or operator within the next 30 days.

(f) Failure of the guarantee. If the local government guarantor no longer meets the requirements of K.A.R. 28-29-2110(b), the owner or operator shall, within 90 days, obtain alternate financial assurance as specified in K.A.R. 28-29-2101(b) and obtain approval from the department for its use. If the owner or operator fails to provide the alternate financial assurance within the 90-day period, the guarantor shall, within the next 30 days, provide the alternate financial assurance in the name of the owner or operator.

(g) Release of the guarantee. The owner or operator shall no longer be required to meet the requirements of this regulation if any of the following occurs:

(1) The owner or operator substitutes an alternative method of financial assurance as specified in K.A.R. 28-29-2101(b) and obtains written approval for its use from the department.

(2) The owner or operator is released by the department from further obligation for closure, postclosure, or both, at the permitted facility.

(3) The owner or operator completes the required corrective action and is released from further obligation by the department or any court of competent jurisdiction.

(h) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2112. Financial assurance provided by use of ad valorem taxing authority. (a) Ad valorem taxing authority. Any owner or operator that is a local government subdivision of the state of Kansas and that is permitted to own or operate a solid waste disposal area or processing facility other than a municipal solid waste landfill may use its statutory authority to assess and collect ad valorem taxes to assure the closure, postclosure, or corrective action costs, or any combination of these, of the facility as required by K.A.R. 28-29-2101 or K.A.R. 28-29-2102, or both.

(b) Proof of ad valorem taxing authority. Whenever required to do so by the department, the local government owner or operator shall perform one of the following:

(1) Provide evidence of currently unused ad valorem taxing authority within any statutory tax limit or cap;

(2) provide analyses demonstrating that the cost of closure, postclosure, corrective action, or any combination of these, will be provided by ad valorem tax assessments within any statutory limit or cap in future budgets at the time that closure, postclosure, corrective action, or any combination of these, is required; or

(3) provide evidence demonstrating the existence and amount of a governmental or enterprise fund containing monies designated for use in providing closure, postclosure, corrective action, or any combination of these, for the permitted facility.

(c) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-3407, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-2113. Financial assurance provided by a simplified financial instrument. (a) Simplified financial instrument.

(1) Any owner or operator of a permitted solid waste disposal area or processing facility with a current closure cost estimate equal to or less than $100,000, and with financial assurance from a single provider for that facility, may provide financial assurance in a simplified form of surety bond or letter of credit, instead of by use of any other financial instrument specified in K.A.R. 28-29-2101(b). The owner or operator of the facility may, with the department's approval, use an assigned certificate of deposit or assigned escrow

account to provide financial assurance if the facility closure cost estimate is $25,000 or less.

(2) The simplified forms of financial instruments specified in this regulation shall not be used to provide financial assurance for the estimated cost of postclosure or corrective action.

(b) Form of the simplified financial instrument. The wording of the simplified surety bond or letter of credit shall be identical to the wording in the documents provided by the department.

(c) When a simplified financial instrument shall not be used. Whenever the estimate of closure cost exceeds $100,000 for any facility for which one of the simplified financial instruments specified in subsection (a) is in use, or whenever requested by the department, the owner or operator shall substitute, for that facility, one or more alternative methods of financial assurance as specified in K.A.R. 28-29-2101(b).

(d) The provisions of this regulation shall apply on and after February 24, 2000. (Authorized by K.S.A. 1998 Supp. 65-3406; implementing K.S.A. 1998 Supp. 65-340, as amended by L. 1999, Ch. 112, Sec. 1; effective February 24, 2000.)

28-29-1100. Household hazardous waste. General. (a) Applicability. K.A.R. 28-29-1100 through K.A.R. 28-29-1107 shall apply to each household hazardous waste facility as defined in K.S.A. 65-3402, and amendments thereto. Subsection (f) of this regulation shall apply to collection events that take place at a site that is not a permanent household hazardous waste collection site. The standards in these regulations shall not exempt any materials from applicable state or federal regulations that are more stringent than these regulations. In each case in which the requirements of the household hazardous waste regulations K.A.R. 28-29-1100 through K.A.R. 28-29-1107 conflict with the requirements of the administrative procedure and solid waste management regulations in K.A.R. 28-29-6 through K.A.R. 28-29-23, the requirements of K.A.R. 28-29-1100 through K.A.R. 28-29-1107 shall control.

(b) Definitions. For the purposes of these regulations, the following definitions shall apply:

(1) ``Household hazardous waste" or ``HHW" means household waste that would be determined to be hazardous waste according to K.A.R. 28-31-4 (b) if the waste were not household waste.

(2) ``Nonhazardous household waste" or ``NHHW" means household waste that is not HHW.

(3) ``Small quantity generator" shall have the meaning specified in K.A.R. 28-31-2.

(4) ``USDOT hazard class or division" means the hazard class or division defined by the United States department of transportation and adopted by reference in K.A.R. 28-31-4 (e).

(c) Used oil. Each HHW facility that accepts used oil from household do-it-yourselfers or exempt farmers shall manage the used oil in accordance with K.A.R. 28-31-16 upon receipt of the used oil at the HHW facility's central collection center. Each HHW facility that transports used oil from businesses shall manage the used oil in accord-

ance with K.A.R. 28-31-16 upon receipt of the used oil at the business site.

(d) Small quantity generator (SQG) waste. Each HHW facility that is permitted to accept SQG waste shall manage all SQG waste that is not hazardous waste in the same manner as that for nonhazardous household waste and shall manage all SQG hazardous waste in the same manner as that for HHW.

(e) Other hazardous waste. Any HHW facility may accept hazardous waste from a source other than a household or an SQG in an emergency, if the facility's operating plan contains procedures to follow in such an emergency.

(f) Temporary collection events. Each temporary collection event at a fixed site shall be conducted only under the direct supervision of a permitted HHW facility or in accordance with a plan approved by KDHE. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1101. Household hazardous waste facility design. The owner or operator of each HHW facility shall perform the following:

(a) Design and construct each access road to accommodate expected traffic flow in a safe and efficient manner;

(b) construct the floor or base of each household waste receiving area and each processing area of concrete or asphalt;

(c) design and construct each storage area for household waste, except used oil stored in tanks, with a weather-resistant, permanent roof; and

(d) provide secondary containment for all HHW stored for disposal or recycling. The secondary contain-

ment shall be capable of containing either 110 percent of the volume of the largest container or 10 percent of the total volume of all the containers, whichever is greater. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1102. Household hazardous waste facility operations. (a) Nonhazardous household waste.

(1) Each HHW facility operator shall store and manage all NHHW according to the facility's operating plan and the following requirements:

(A) Place the NHHW in the designated area, as described in the facility operating plan, within one week after it is received;

(B) ensure that each NHHW storage container or each NHHW storage area has a label or sign designating its contents;

(C) when NHHW is present, inspect all NHHW storage areas weekly to assess waste volume and container integrity, and document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection; and

(D) store NHHW to be distributed for use in a manufacturer's original container or, for latex paint, in a compatible container provided by the HHW facility. Each container that will be distributed for use shall be labeled, closed, and nonleaking.

(2) Each HHW facility operator shall distribute for use, recycling, or disposal all NHHW accepted by the facility according to all of the following requirements:

(A) NHHW may be distributed for use in a manner equivalent to its originally intended purpose.

(B) NHHW may be disposed of in a permitted municipal solid waste landfill. However, latex paint and all

other liquids shall be disposed of in a permitted municipal solid waste landfill only if one of the following conditions is met:

(i) The paint or other liquid is solidified.

(ii) The paint or other liquid is in the original container, and the volume of the container is no greater than five gallons.

(C) NHHW may be disposed of in a sanitary sewer connected to a publicly owned treatment works with written authorization from the operators of the publicly owned treatment works.

(D) The HHW facility may choose to manage certain types of NHHW, as described in the facility's operating plan, according to the requirements in subsection (b) of this regulation.

(b) Household hazardous waste.

(1) Each HHW facility operator shall store and manage all HHW according to the facility's operating plan and all of the following requirements:

(A) Place the HHW in the designated area, as described in the facility operating plan, within one week after it is received. Sort and segregate all HHW, except HHW that will be distributed for use, by U.S. department of transportation hazard class or division;

(B) except for HHW that will be distributed for use, mark each HHW storage container or each segregated HHW storage area according to U.S. department of transportation hazard class or division;

(C) keep all storage containers that are in direct contact with HHW closed, except when adding or removing waste;

(D) when HHW is present, inspect all HHW storage areas weekly to assess waste volume and container integ-

rity, and document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection; and

(E) store HHW that will be distributed for use in a manufacturer's original container. Each container that will be distributed for use shall be labeled, closed, and nonleaking.

(2) Each HHW facility operator shall distribute for use, recycling, or disposal all HHW accepted by the facility according to all of the following requirements:

(A) HHW may be distributed for use in a manner equivalent to its originally intended purpose.

(B) All HHW that is transferred for treatment, storage, or disposal shall be transferred to a permitted hazardous waste treatment, storage, or disposal facility by a registered hazardous waste transporter.

(C) All HHW that is transferred for treatment, storage, or disposal shall be manifested as hazardous waste as described in K.A.R. 28-31-4 (d), with the following changes:

(i) For the purposes of paragraph (b)(2)(C) of this regulation, ``Kansas or EPA generator'' shall be replaced with ``HHW facility operator,'' and ``hazardous waste'' shall be replaced with ``HHW'' in K.A.R. 28-31-4 (d).

(ii) All applicable hazardous waste codes for each waste shall be listed on the manifest, using all available information. HHW facilities shall not be required to submit samples for laboratory testing in order to determine hazardous waste codes.

(D) All HHW that is transferred for treatment, storage, or disposal shall be subject to the hazardous waste land disposal requirements specified in K.A.R. 28-31-14.

(E) All HHW that is transferred for treatment, storage, or disposal shall be prepared for transportation off-site as

specified in K.A.R. 28-31-4 (e). For the purposes of this paragraph, ``Kansas or EPA generator'' shall be replaced with ``HHW facility operator,'' and ``hazardous waste'' shall be replaced with ``HHW'' in K.A.R. 28-31-4 (e).

(F) The requirements of paragraphs (b)(2)(B) through (b)(2)(E) of this regulation shall not apply to the following wastes:

(i) HHW that is transferred to a universal waste facility and packaged and labeled in accordance with K.A.R. 28-31-15;

(ii) antifreeze that is transferred to a commercial collector under the conditions of an agreement to recycle the antifreeze;

(iii) HHW that is disposed of in the sanitary sewer connected to a publicly owned treatment works with written authorization from the operators of the publicly owned treatment works. HHW shall not be discharged to storm sewers or septic systems;

(iv) containers that have been emptied to the fullest practical extent and are disposed of in a permitted municipal solid waste landfill;

(v) HHW that is transferred between HHW facilities; and

(vi) other waste, as approved by the department.

(c) Storage. Each HHW facility operator shall maintain the quantity of stored material at or below the facility's permitted storage capacity.

(d) Signs. Each HHW facility operator shall post a sign outside of the facility that includes the following information:

(1) The name of the facility;

(2) the hours and days of operation;

(3) the name of the permit holder;

(4) the telephone number of an emergency contact available during nonoperating hours; and

(5) the permit number.

(e) Training. All HHW facility managers, employees, and volunteers that are responsible for sorting, segregating, or processing HHW shall receive a minimum of 24 hours of classroom training related to the proper handling of hazardous materials and shall receive a minimum of eight hours of annual refresher training. Education or experience may be substituted for the required training, subject to departmental approval. No person shall sort, segregate, or process HHW without on-site supervision before receiving this training. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1103. Mobile HHW collection units. Each permitted facility that transports HHW from a temporary collection site or from a satellite HHW facility to a permitted HHW facility shall perform the following:

(a) Clearly mark ``Household hazardous waste" on both sides of the mobile collection unit;

(b) separate all HHW by USDOT hazard class or division before transport;

(c) lab pack or overpack the household waste in containers meeting the USDOT manufacturing and testing specifications for transportation of hazardous materials, as adopted by reference in K.A.R. 28-31-4 (e);

(d) label the containers with a USDOT hazard class or division label or sign;

(e) seal and secure all containers for transport; and

(f) during transportation, carry a bill of lading describing the USDOT hazard class or division and the approximate quantities of the contents of the mobile collection unit. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1104. Satellite HHW facilities. (a) ``Satellite HHW facility" shall mean any permanent HHW collection site, located away from the central collection center, that is part of a permitted HHW program.

(b) Each person who owns or operates a satellite HHW facility shall meet all of the following requirements:

(1) The HHW satellite facility shall be described in the approved operating plan of the permitted HHW facility or facilities with which the satellite HHW facility is associated.

(2) The owner or operator of the satellite HHW facility shall submit an operating plan, a facility drawing, and a description of any HHW storage cabinets to the department.

(3) A copy of each bill of lading used for transporting HHW to the central collection center shall be maintained at the satellite HHW facility for a period of three years.

(c) Each person who owns or operates a satellite HHW facility using storage cabinets shall meet all of the following requirements:

(1) A minimum of two and a maximum of four HHW storage cabinets, including at least one for flammables and one for corrosives, shall be used at each satellite HHW facility.

(2) Each HHW storage cabinet shall be designed for the HHW stored in it.

(3) Each HHW storage cabinet shall have a storage capacity of not more than 120 gallons.

(4) All HHW shall be properly segregated and stored within the appropriate storage cabinets by the end of the working day.

(5) If HHW is present, the facility owner or operator shall inspect all HHW storage areas weekly to assess waste volume and container integrity, and shall document these inspections in a log that is dated and either signed or initialed by the person who conducted the inspection.

(6) Not more than one week after the storage capacity has been reached, the owner or operator shall make arrangements to remove the HHW stored in HHW storage cabinets. HHW stored in HHW storage cabinets shall be removed at least once a year. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1105. HHW reporting and recordkeeping.
(a) The owner or operator of each HHW facility shall submit an annual report to the department on a form furnished by the department.

(b) The owner or operator of each HHW facility shall maintain a copy of the approved design plan, closure plan, and all modifications to the plans, at the facility or at another location designated in the facility operating plan, until the facility closes.

(c) The owner or operator of each HHW facility shall maintain at the facility a copy of the approved operating plan and all modifications to the plan, until the facility closes.

(d) The owner or operator of each HHW facility shall maintain the following records at the facility or at another location designated in the facility operating plan, for at least three years:

(1) Copies of the annual report;

(2) training records;

(3) bills of lading:

(4) hazardous waste manifests;

(5) land disposal restriction notifications;

(6) weekly inspection records; and

(7) notification of changes to approved design, operations, and closure plans. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1106. HHW facility closure. The owner or operator of each HHW facility shall meet the following requirements:

(a) Notify the department at least 60 days before beginning closure;

(b) remove all household waste within 90 days after last receiving waste; and

(c) submit to the department certification that the facility has closed in accordance with the specifications in the approved closure plan. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

28-29-1107. HHW permits. (a) Each person that plans to establish an HHW facility shall submit a permit application to the department on a form supplied by the department. The applicant shall include with the permit application the following items:

(1) Facility design plan. The facility design plan shall

include all of the following information:

(A) The type, size, and location of the facility;

(B) a regional plan or a map showing the service area;

(C) a vicinity plan or map that depicts the following features and information:

(i) Residences, wells, surface waters, and access roads within 0.5 mile of the site boundaries, and any other existing or proposed man-made or natural features relating to the project;

(ii) adjacent zoning and land use; and

(iii) evidence that the facility will not be located within the 100-year floodplain;

(D) a topographic map showing elevation contours;

(E) a site plan depicting the following features:

(i) On-site and off-site utilities, including electricity, gas, and water;

(ii) storm and sanitary sewer systems;

(iii) right-of-ways; and

(iv) the location of buildings and appurtenances, fences, gates, roads, paved lots, parking areas, drainage, culverts, and signs; and

(F) detailed plans depicting the following features:

(i) Building elevation and plan view;

(ii) building floor plans, shelving plans, appurtenances, and necessary detail sections to include electrical and mechanical systems;

(iii) designated areas for activities to be conducted at

the facility, including receipt, segregation, bulking, distribution, packaging, and storage of household waste; and

(iv) entrance area gates, fencing, and signs.

(2) Operating plan. The operating plan shall contain the following information:

(A) The activities to be conducted at the facility, including receipt, segregation, bulking, packaging, storage, and distribution of household waste;

(B) the activities to be conducted off-site, including operation of mobile collection units, curbside collection, and satellite storage facilities;

(C) the procedures for handling ignitable or reactive waste;

(D) the procedures for identifying and managing small quantity generator waste;

(E) the duties and responsibilities of facility personnel;

(F) the training program and requirements for the different types of facility personnel; and

(G) the emergency response plan for events including spills, fires, equipment failure, power outages, natural disasters, receipt of prohibited materials, and other similar interruptions of normal activities.

(3) Closure plan. The closure plan shall contain the following information:

(A) The procedure for removing and disposing of waste at closure;

(B) the procedure for cleaning the facility;

(C) the schedule for closure; and

(D) the closure cost estimate on a form supplied by the department.

(b) Modifications to plans. The owner or operator shall notify the department, in writing, of all modifications to the approved plans before the implementation of modifications. Modifications submitted to the department shall be effective 28 calendar days after the date the modification notice is received by the department, unless the department notifies the owner or operator that the modification will require further review before it can be approved. Changes to approved plans shall not conflict with any provision of K.A.R. 28-29-1100 through K.A.R. 28-29-1107. (Authorized by and implementing K.S.A. 1999 Supp. 65-3406 and 65-3460; effective June 16, 2000.)

Clyde D. Graeber

Secretary of Health

and Environment