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**Rules of**  
**Department of Natural Resources**  
**Division 80—Solid Waste Management**  
**Chapter 2—General Provisions**

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**Title 10—DEPARTMENT OF  
NATURAL RESOURCES**

**Division 80—Solid Waste Management  
Chapter 2—General Provisions**

**10 CSR 80-2.010 Definitions**

*PURPOSE: This rule defines terms used in 10 CSR 80.*

*PUBLISHER'S NOTE: The publication of the full text of the material that the adopting agency has incorporated by reference in this rule would be unduly cumbersome or expensive. Therefore, the full text of that material will be made available to any interested person at both the Office of the Secretary of State and the office of the adopting agency, pursuant to section 536.031.4, RSMo. Such material will be provided at the cost established by state law.*

- (1) Alkaline-manganese battery or alkaline battery means a battery having a manganese dioxide positive electrode, a zinc negative electrode, an alkaline electrolyte, including alkaline-manganese button cell batteries intended for use in watches, calculators, and other electronic products, and larger-sized alkaline-manganese batteries in general household use.
- (2) Button cell battery or button cell means any small alkaline-manganese or mercuric-oxide battery having the size and shape of a button.
- (3) Airport means a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.
- (4) Applicant means a person who applies for a solid waste permit from the department.
- (5) Aquifer means a geologic unit or stratum capable of consistently yielding a sufficient amount of water to a monitoring well within twenty-four (24) hours of purging for sampling and analysis.
- (6) Areas susceptible to mass movement means those areas of influence (for example, areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath or adjacent to the sanitary landfill, 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 include, but are not limited to, landslides, avalanches, debris slides and flows, solifluction, block sliding and rock fall.
- (7) Bedrock means the solid rock strata underlying solid and unconsolidated surface materials.
- (8) Bird hazard means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.
- (9) Cell means compacted solid wastes that are enclosed on all sides by natural soil or cover in a solid waste disposal area.
- (10) City means any incorporated city, town or village.
- (11) Clean fill means uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the department for fill, reclamation or other beneficial use.
- (12) Closure means the permanent cessation of active disposal operations, abandonment of the disposal area, revocation of the permit or filling with waste of all areas and volumes specified in the permit and preparing the area for long-term care.
- (13) Closure plan means plans, designs and relevant data which specify the methods and schedule by which the operator will complete or cease disposal operations, prepare the area for long-term care and make the area suitable for other uses, to achieve the purposes of the Solid Waste Management Law and the corresponding rules.
- (14) Commercial waste means all types of solid waste generated by stores, offices, restaurants, warehouses and other nonmanufacturing activities, excluding residential and industrial wastes.
- (15) Commingled recyclables means more than one(1) source separated recyclable material that has been placed in a single container for collection.
- (16) Competent bedrock means solid rock that underlies unconsolidated deposits (including residuum) which displays limited evidence of weathering throughout the rock mass.
- (17) Compost facility means a solid waste processing facility using a controlled process of microbial degradation of organic material which was not source-separated into a stable, nuisance-free humus-like product.
- (18) Confining bed means a body of low permeability material above or below one (1) or more aquifers.
- (19) Cover means soil or other suitable material that is used to cover compacted solid waste in a solid waste disposal area.
- (20) Demolition landfill means a solid waste disposal area used for the controlled disposal of demolition wastes, construction materials, brush, wood wastes, soil, rock, concrete and inert solids insoluble in water.
- (21) Department means the Department of Natural Resources.
- (22) Detailed site investigation means the process of conducting a detail surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.
- (23) Detail site investigation report means a written report that is submitted to the Missouri Department of Natural Resources concerning the results of a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.
- (24) Detailed site investigation workplan means a plan for conducting a detailed surface and subsurface geologic and hydrologic investigation for a proposed solid waste disposal area.
- (25) Director means the director of the Department of Natural Resources.
- (26) Displacement means the relative movement of any two (2) sides of a fault measured in any direction.
- (27) Existing sanitary landfill means any sanitary landfill that continues to receive solid waste in contiguous areas after October 9, 1993.
- (28) 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.
- (29) Final closure means that a solid waste disposal area has ceased taking waste, has completed all closure activities applicable to the Solid Waste Management Program's law and rules and has obtained closure approval from the program.
- (30) Financial assurance instrument means an instrument or instruments including, but not



limited to, cash or surety bond, letters of credit, corporate guarantee or secured trust fund, submitted by the applicant to ensure proper closure, post-closure care, or corrective action of a solid waste disposal area in the event that the operator fails to correctly perform closure, post-closure care, or corrective action except that the financial test for the corporate guarantee shall not exceed one and one-half (1 1/2) times the estimated cost of closure and post-closure. The form and content of the financial assurance instrument shall meet or exceed the requirements of the department. The instrument shall be reviewed and approved or disapproved by the attorney general.

(31) Flood area means any area inundated by one hundred (100)-year flood event, or the flood event with a one percent (1%) chance of occurring in any given year.

(32) Floodplain means the lowland and relatively flat areas adjoining inland waters, that are inundated by the one hundred (100)-year flood.

(33) Gas condensate means the liquid generated as a result of gas recovery process(es) at the solid waste disposal area.

(34) Geologic structure means the post-depositional deformation of bedrock and surficial materials resulting from physical stresses, (e.g. faults, folds).

(35) Groundwater means water in the saturated zone beneath the land surface.

(36) Groundwater monitoring plan means a description of the strategy for effectively monitoring groundwater at a proposed or existing solid waste disposal area.

(37) Hazardous wastes means any waste or combination of wastes, as determined by the Hazardous Waste Commission by rules and regulations, which, because of quantity, concentration, or physical, chemical or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illnesses, or pose a present or potential threat to the health of humans or the environment.

(38) Holocene means the most recent epoch of the Quaternary Period, extending from the end of the Pleistocene Epoch to the present.

(39) Horizontal expansion means an expansion of a disposal area beyond current per-

mitted disposal area limits through issuance of a new permit by the department.

(40) Household consumer means an individual who generates used motor oil through the maintenance of the individual's personal motor vehicle, vessel, airplane, or other machinery powered by an internal combustion engine.

(41) Household consumer used motor oil collection center means any site or facility that accepts or aggregates and stores used motor oil collected only from household consumers or farmers who generate an average of twenty-five (25) gallons per month or less of used motor oil in a calendar year. This section shall not preclude a commercial generator from operating a household consumer used motor oil collection center.

(42) Household consumer used motor oil collection system means any used motor oil collection center at publicly owned facilities of private locations, any curbside collection of household consumer used motor oil, or any other household consumer used motor oil collection program determined by the department to further the purposes of the Solid Waste Management Law.

(43) Household waste means any solid waste (including garbage, trash and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas).

(44) Incinerator means a solid waste processing facility consisting of any device or structure resulting in weight or volume reduction of solid waste by combustion.

(45) Incinerator residue means all wastes that remain after combustion, including bottom ash, fly ash, slag and grate siftings.

(46) Infectious waste means waste in quantities and characteristics as determined by the department by rule that is capable of producing an infectious disease because it contains pathogens of sufficient virulence and quantity so that exposure to the waste by a susceptible human host could result in an infectious disease. These wastes include isolation wastes, cultures and stocks of etiologic agents, blood and blood products, pathological wastes, other contaminated wastes from surgery and autopsy; contaminated laboratory wastes, sharps, dialysis unit wastes, discarded biological materials known or suspected to be infectious; provided, however,

that infectious waste does not mean waste treated to department specifications.

(47) Infectious waste processing facility means a solid waste processing facility permitted specifically for the treatment or other processing of infectious waste.

(48) Karst terranes means areas where karst, with its characteristic surface and subsurface features, is developed as the result of dissolution of limestone, dolomite or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, losing streams, caves, solution channels or conduits, springs and solution valleys.

(49) Land surveyor means a land surveyor licensed to practice by the Missouri Board for Architects, Professional Engineers and Land Surveyors.

(50) Leachate means liquid that has percolated through solid waste or has come in contact with solid waste and has extracted, dissolved or suspended materials from it.

(51) Leachate collection system means any combination of landfill base slopes, liners, permeable zones, pipes, sumps, pumps or retention structures that is designed, constructed and maintained to monitor leachate generation in a solid waste disposal area and collect and remove leachate as necessary to reduce leachate depth over a landfill base.

(52) Lead acid battery means a battery designed to contain lead and sulfuric acid with a nominal voltage of a least six (6) volts and of the type intended for use in motor vehicles and watercraft.

(53) Liner means a continuous layer(s) of soil, man-made materials, or both, beneath and on the sides of a solid waste disposal area which controls and minimizes the downward or lateral escape of solid waste, solid waste constituents or leachate.

(54) Liquid waste means any waste material that is determined to contain free liquids as defined by Method 9095 (Paint Filter Liquids Test), as described in *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods* (EPA Pub. No. SW-846).

(55) 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 does not

include man-made materials, such as fill, concrete and asphalt or unconsolidated earth materials, soil or regolith lying at or near the earth surface.

(56) Major appliance means clothes washers and dryers, water heaters, trash compactors, dishwashers, microwave ovens, conventional ovens, ranges, stoves, woodstoves, air conditioners, refrigerator, and freezers.

(57) Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a ninety percent (90%) or greater probability that the acceleration will not be exceeded in two hundred fifty (250) years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

(58) Mercuric-oxide battery or mercury battery means a battery having a mercuric-oxide positive electrode, a zinc negative electrode, and an alkaline electrolyte, including mercuric-oxide button cell batteries generally intended for use in hearing aides and larger size mercuric-oxide batteries used primarily in medical equipment.

(59) Motor oil means any oil intended for use in a motor vehicle, as defined in section 301.010, RSMo, train, vessel, airplane, heavy equipment, or other machinery powered by an internal combustion engine.

(60) Municipal wastes means household waste, commercial, agricultural, governmental, industrial and institutional waste which have chemical and physical characteristics similar to those of household waste.

(61) New sanitary landfill means any sanitary landfill that has not received waste prior to October 9, 1993.

(62) On-site means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing, as opposed to going along, the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which s/he controls and to which the public does not have access is also considered on-site property.

(63) One hundred (100)-year flood means a flood that has a one percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded

once in one hundred (100) years on the average over a significantly long period.

(64) Open burning means the combustion of solid waste without: 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 the emission of the combustion products.

(65) Open dump means an unpermitted solid waste disposal area at which solid wastes are disposed of in a manner that does not protect the environment, are susceptible to open-burning and are exposed to the elements, vectors and scavengers.

(66) Operator means a person who is responsible for the overall day-to-day operation and maintenance of a facility and along with the owner, obtains a solid waste permit from the department.

(67) Owner means any person holding a freehold interest in the land upon which the solid waste disposal area or solid waste processing facility is located.

(68) Owner/operator means owner and operator.

(69) Permit modification means any approval issued by the department which alters or modifies the provision of an existing permit previously issued by the department.

(70) Person means individual, partnership, corporation, association, institution, city, county, other political subdivision, authority, state agency or institution or federal agency or institution.

(71) Phase means a distinct area of a landfill, identifiable both in the plans and in the field by natural boundaries or permanent survey markers. A phase must include provisions for constructing and operating leachate collection systems, liners, gas collection systems and any other landfill structures independent of any other phase.

(72) Phased development means the division of the construction and operations of a solid waste disposal area permit into two (2) or more distinct phases in order to facilitate more orderly construction, operation, closure or post-closure care, or both, of the solid waste disposal area, with each phase being distinctly identifiable both in the plans and in the field by natural boundaries or permanent survey markers, or both.

(73) Plans mean reports and drawings, including a narrative operating description, prepared to describe the solid waste disposal area or solid waste processing facility design, its proposed operation and closure and post-closure care.

(74) Poor foundation conditions means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill.

(75) Post-closure care means all maintenance and monitoring performed at a solid waste disposal area after closure is complete to prevent or minimize existing or potential health hazards, public nuisance or environmental pollution and in accordance with the terms of the permit, the Solid Waste Management Law and the corresponding rules.

(76) Post-closure plan means plans, designs and relevant data which specify the methods and schedules by which the operator shall perform necessary monitoring and care for the area after closure to achieve the purposes of the Solid Waste Management Law and the corresponding rules.

(77) Preliminary site investigation means an investigation conducted by the Division of Geology and Land Survey to determine the geohydrologic suitability for further exploration at a proposed solid waste disposal area.

(78) Professional engineer means a professional engineer licensed to practice by the Missouri Board for Architects, Professional Engineers and Land Surveyors.

(79) Qualified groundwater scientist means a scientist or licensed professional 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 as may be demonstrated by state registration, professional certifications or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

(80) Recovered materials means those material which have been diverted or removed from the solid waste stream for sale, use, reuse or recycling, whether or not they require subsequent separation and processing.

- (81) Recycled content means the proportion of fiber or content in a product which is derived from postconsumer waste.
- (82) Recycling means the separation and reuse or remanufacture of materials which might otherwise be disposed of as solid waste.
- (83) Recycling center means any collection (not manufacturing) facility or system that accepts source-separated recyclable or commingled recyclable materials for processing and resale to markets for resource recovery for example: aluminum cans and scraps, tin, copper, glass, paper products, plastics, bi-metal and steel containers, ferrous and non-ferrous metals.
- (84) Resource recovery means a process by which recyclable and recoverable material is removed from the waste stream to the greatest extent possible, as determined by the department and pursuant to department standards, for reuse or remanufacture.
- (85) Resource recovery facility means any facility including a material recovery facility in which recyclable and recoverable material is removed from the waste stream to the greatest extent possible, as determined by the department and pursuant to department standards, for reuse or remanufacture.
- (86) Runoff means any liquid that drains over land from any part of a facility.
- (87) Run-on means any liquid that drains over land onto any part of a facility.
- (88) Salvaging means the controlled removal of solid waste materials for utilization.
- (89) Sanitary landfill means a permitted solid waste disposal area employing an engineered method of disposing of solid wastes on land in a manner that minimizes environmental hazards by spreading the solid wastes in thin layers, compacting the solid wastes to the smallest practical volume and applying cover at the end of each operating day. Sanitary landfills include all disposal area that accept all types of solid waste including, but not limited to, commercial and residential solid waste.
- (90) Scavenging means uncontrolled or unauthorized removal of solid waste from a solid waste disposal area or solid waste processing facility.
- (91) Seismic impact zone means an area with a ten percent (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 two hundred fifty (250) years.
- (92) Sludge means the accumulated semisolid suspension of settled solids deposited from wastewaters or other fluids in tanks or basins.
- (93) Soil means sediments or other unconsolidated accumulations of solid particles produced by the physical and chemical disintegration of rocks and which may or may not contain organic matter.
- (94) Solid waste means garbage, refuse and other discarded materials including, but not limited to, solid and semisolid waste materials resulting from industrial, commercial, agricultural, governmental and domestic activities, but does not include hazardous waste as defined in sections 260.360 to 260.434, RSMo recovered materials, overburden, rock, tailings, matte, slag or other waste material resulting from mining, milling or smelting.
- (95) Solid waste disposal area means any area used for the disposal of solid waste from more than one (1) residential premises, or one (1) or more commercial, industrial, manufacturing, recreational or governmental operation.
- (96) Solid waste management plan means a set of documents legally adopted by a state recognized governing body of a local or regional solid waste management program to administer the solid waste management system(s) for a minimum of ten (10) years.
- (97) Solid waste management system means the entire process of managing solid waste in a manner which minimizes the generation and subsequent disposal of solid waste, including waste reduction, source separation, storage, collection, transportation, recycling, resource recovery, volume minimization, processing market development and disposal of solid wastes.
- (98) Solid waste processing facility means any facility where solid wastes are salvaged and processed, including:  
 (A) A transfer station; or  
 (B) An incinerator which operates with or without energy recovery but excluding waste tire end-user facilities; or  
 (C) A material recovery facility which operates with or without composting.
- (99) Solid waste technician means an individual who has successfully completed training in the practical aspects of the design, operation and maintenance of a permitted solid waste processing facility or solid waste disposal area in accordance with the Solid Waste Management Law and rules.
- (100) Source reduction means practices which avoid, eliminate or minimize the generation of solid waste.
- (101) Source-separated recyclable material means a waste material, for which a market exists, which has not been commingled with other solid waste but has been kept separate at the point of generation.
- (102) Special waste means waste which is not regulated hazardous waste, which has physical or chemical characteristics, or both, that are different from municipal, demolition, construction and wood wastes, and which potentially require special handling.
- (103) Special waste landfill means a solid waste disposal area permitted specifically for the disposal of one (1) or more special waste(s).
- (104) Special waste processing facility means a solid waste processing facility permitted specifically for the processing of one (1) or more special waste(s).
- (105) Structural components means liners, leachate collection systems, final covers, run-on/runoff systems and any other component used in the construction and operation of the solid waste disposal area that is necessary for protection of human health and the environment.
- (106) Tire means a continuous solid or pneumatic rubber covering encircling the wheel of any self-propelled vehicle not operated exclusively upon tracks, or a trailer as defined in Chapter 301, RSMo, except farm tractors and farm implements owned and operated by a family farm or family farm corporation as defined in section 350.010, RSMo.
- (107) Transfer station means a site or facility which accepts solid waste for temporary storage, or consolidation and further transfer to a waste disposal, processing or storage facility. Transfer station includes, but is not limited to, a site or facility where waste is transferred from: a rail carrier, motor vehicle or water carrier to another carrier, if the waste is removed from the container or vessel.

(108) 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 landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas, susceptible to mass movements and karst terranes.

(109) Uppermost aquifer means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the property boundary.

(110) Used motor oil means any motor oil which as a result of use, becomes unsuitable for its original purpose due to loss of original properties or the presence of impurities, but used motor oil shall not include ethylene glycol oils used for solvent purposes, oil fibers that have been drained of free-flowing used oil, oily waste, oil recovered from oil tank cleaning operation, oil spilled to land or water, or industrial nonlube oils such as hydraulic oils, transmission oils, quenching oils, and transformer oils.

(111) Utility waste means fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(112) Utility waste landfill means a solid waste disposal area used for fly ash waste, bottom ash waste, slag waste and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

(113) Vector means a carrier including, but not limited to, arthropod, birds and rodents capable of transmitting a pathogen from one organism to another.

(114) Vegetation means plant materials that have been specified in the closure/post-closure plans and have been specifically cultivated for cover on the landfill and borrow area. Vegetation should provide at least eighty percent (80%) coverage in order to control erosion and limit water infiltration.

(115) Washout means the carrying away of solid waste by waters of the one hundred (100)-year flood.

(116) Waste tire means a tire that is no longer suitable for its original intended purpose because of wear, damage, or defect.

(117) Waste tire collection center means a site where waste tires are collected prior to being offered for recycling or processing and where fewer than five hundred (500) tires are kept on-site on any given day.

(118) Waste tire end-user facility means a site where waste tires are used as a fuel or fuel supplement or converted into a useable product. Baled or compressed tires used in structures, or used at recreational facilities, or used for flood or erosion control shall be considered an end use.

(119) Waste tire generator means a person who sells tires at retail or any other person, firm, corporation, or government entity that generates waste tires.

(120) Waste tire processing facility means a site where tires are reduced in volume by shredding, cutting, chipping or otherwise altered to facilitate recycling, resource recovery or disposal.

(121) Waste tire site means a site at which five hundred (500) or more waste tires are accumulated, but not including a site owned or operated by a waste tire end-user that burns waste tires for the generation of energy or converts waste tires to a useful product.

(122) Waters of the state mean all rivers, streams, lakes and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased or otherwise controlled by a single person or by two (2) or more persons jointly or as tenants in common and includes waters of the United States lying within the state.

(123) Water table means the upper surface of a zone of saturation where the fluid pressure of the body of groundwater is equal to atmospheric pressure.

(124) Well means any hole drilled in the earth for or in connection with the discovery or recovery of water, minerals, oil, gas or for or in connection with the underground storage of gas in natural formations.

(125) Wetlands means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs and similar areas.

(126) Working face means that portion of the solid waste disposal area where solid wastes are discharged and are spread and compacted prior to the placement of cover.

(127) Yard waste means leaves, grass clippings, yard and garden vegetation and Christmas trees. This term does not include stumps, roots or shrubs with intact root balls.

*AUTHORITY: sections 260.200 and 260.225, RSMo (Cum. Supp. 1996).\* Original rule filed Dec. 11, 1973, effective Dec. 21, 1973. Amended: Filed July 14, 1986, effective Jan. 1, 1987. Amended: Filed Jan. 5, 1987, effective June 1, 1987. Amended: Filed Jan. 29, 1988, effective Aug. 1, 1988. Amended: Filed Aug. 15, 1988, effective Dec. 29, 1988. Emergency amendment Sept. 29, 1993, effective Oct. 9, 1993, expired Feb. 5, 1994. Amended: Filed May 3, 1993, effective Jan. 13, 1994. Amended: Filed March 17, 1992.\*\* Emergency rescission of the 1992 amendment filed March 19, 1997, effective April 1, 1997, expired Sept. 27, 1997. Amended: Filed Oct. 10, 1996, effective July 30, 1997. Rescission of the 1992 amendment filed April 3, 1997, effective Aug. 30, 1997.*

*\*Original authority: 260.200 and 260.225, RSMo (1972), amended 1975, 1986, 1988, 1990, 1993, 1995.*

*\*\*The Missouri Supreme Court in Missouri Coalition for the Environment, et al., v. Joint Committee on Administrative Rules, et al., Case No. 78628, dated February 25, 1997, ordered the secretary of state to publish this amendment. The Missouri Department of Natural Resources subsequently filed an emergency rescission of this amendment as well as a proposed rescission of this amendment which became effective August 30, 1997. See the above authority section for filing dates.*

#### 10 CSR 80-2.011 Definitions

*Emergency rule filed Sept. 29, 1993, effective Oct. 9, 1993, expired Feb 5, 1994. Emergency rule filed Jan. 28, 1994, effective Feb. 7, 1994, expired June 6, 1994.*

#### 10 CSR 80-2.015 Preliminary Site Investigation, Detailed Site Investigation Workplan, and Detailed Site Investigation and Characterization Report

*PURPOSE: This rule describes the steps required to characterize the geologic and hydrologic conditions at a proposed solid waste disposal area prior to submittal of a*

construction permit application in compliance with section 260.205, RSMo (Cum. Supp. 1996).

(1) On and after January 1, 1996, no applicant may apply for, or obtain, a permit to construct a solid waste disposal area unless the person has obtained geologic and hydrologic site approval from the department. Geologic and hydrologic approval indicates that the site has been found to be suitable for development of a solid waste disposal area, provided the required plans and engineering reports detailing the construction and operation of the site are prepared and approved by the department. In order to obtain geologic and hydrologic site approval from the department, the following procedures must be followed:

(A) The potential disposal area construction permit applicant must obtain preliminary site approval from the department. The Division of Geology and Land Survey (DGLS) Geologic Survey Program (GSP) will conduct a preliminary site investigation and approve or disapprove the site for further investigation within sixty (60) days of receipt of a request. Preliminary site approval is provisional, as required additional investigations may reveal conditions that may lead to site disapproval. Disapproval may be appealed to the DGLS division director. Preliminary site investigation requests shall be submitted to the GSP on the form included in Appendix 1 which is incorporated herein;

(B) Prior to conducting further investigation of the proposed site, the potential disposal area construction permit applicant must retain a qualified groundwater scientist who is a registered geologist per section 256.453, RSMo who shall request and attend a workplan development meeting with the GSP. This meeting shall include, at a minimum, discussion of the geology and hydrology of the proposed site and specific elements to be included in the workplan, time frames for completion of work and a discussion of the GSP's regulations and requirements;

(C) The qualified groundwater scientist who is a registered geologist per section 256.453, RSMo shall then prepare and submit to the department a workplan for conducting a detailed surface and subsurface geologic and hydrologic investigation. The elements and format of the workplan are listed in Appendix 1 which is incorporated herein. The GSP will review and approve or disapprove the detailed site investigation workplan within thirty (30) days of receipt; and

(D) After the workplan is approved, a qualified groundwater scientist shall investigate and characterize the geology and hydrology

of the site in accordance with: the approved workplan, applicable rules and department guidance. All geologic and hydrologic data collection and interpretation shall be under the direction of a geologist registered in the state of Missouri. The applicant or a representative shall notify the GSP when drilling, testing, or field investigations are to take place so that department personnel may be present on-site during the investigations.

1. The approved workplan will provide site-specific guidance for the applicant to complete the detailed site investigation. The workplan may be amended and changed with the approval of the GSP, as the investigation proceeds.

2. The qualified groundwater scientist shall interpret and summarize the geologic and hydrologic characteristics of the site in a detailed site investigation and characterization report which is to be submitted to the GSP. Guidance for conducting and reporting a detailed site investigation is included as Appendix 1 of this rule which is incorporated herein. The report shall be signed and sealed by a geologist registered in the state of Missouri. The report shall be submitted to the GSP for review.

(2) The GSP will review the report within sixty (60) days of receipt and approve or disapprove the site.

(A) Approval will indicate that the site has been found to have suitable geologic and hydrologic characteristics for the development of an environmentally sound solid waste disposal area. The potential disposal area construction permit applicant may then apply for a permit by submitting the required documents, plans, and engineering reports to the department.

(B) Disapproval will indicate one (1) or more of the following:

1. The site has been found to have unsuitable geologic and hydrologic conditions for the development of an environmentally sound solid waste disposal area; or

2. The characterization of the site is not adequate to show that the site has suitable geologic and hydrologic conditions for the development of an environmentally sound solid waste disposal area; or

3. The characterization report is not adequate to show that the site has suitable geologic and hydrologic conditions for the development of an environmentally sound solid waste disposal area.

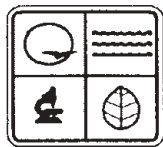
(C) The GSP will specify the inadequacies of the site, characterization of the site, or site characterization report in the written disapproval of the site. Disapprovals may be appealed to the DGLS division director.

*AUTHORITY: sections 260.205 and 260.225 (Cum. Supp. 1996). \* Original rule filed Oct. 10, 1996, effective July 30, 1997.*

*\*Original authority: 260.205, RSMo (1972), amended 1975, 1986, 1988, 1990, 1991, 1995 and 260.225, RSMo (1972), amended 1975, 1986, 1988, 1990, 1993, 1995.*

## APPENDIX 1

### GUIDANCE FOR CONDUCTING AND REPORTING DETAILED GEOLOGIC AND HYDROLOGIC INVESTIGATIONS AT A PROPOSED SOLID-WASTE DISPOSAL AREA



**Missouri Department of Natural Resources  
Division of Environmental Quality  
Division of Geology and Land Survey**

This appendix contains the following:

- ▶ Elements and format of a workplan for conducting the Detailed Site Investigation.
- ▶ Guidance for conducting an acceptable detailed geologic and hydrologic investigation of a proposed solid-waste disposal area.
- ▶ Guidance for the acceptable presentation of site characterization data.
- ▶ Form for requesting a preliminary investigation for a proposed solid-waste disposal area.

#### **ELEMENTS AND FORMAT OF A DETAILED SITE INVESTIGATION WORKPLAN**

The detailed site investigation workplan must contain the following elements plus any additional site-specific elements which may be requested by the Geological Survey Program (GSP).

1. Topographic map at scale of 1:24000 showing the pertinent property boundaries, as well as the location of the proposed solid-waste disposal area, and potential borrow areas
2. Site map at a suitable scale to display proposed locations for pits, borings, and piezometers
3. A general description of the proposed facility to include:
  - a. Maximum depth of excavation
  - b. Total acreage to be developed as a solid-waste disposal area



4. Description of proposed methods for site exploration to include:
  - a. Drilling methods
  - b. Sampling methods
  - c. Piezometer and monitoring well construction methods (must comply with 10 CSR 23-4):
    - (1) Approximate depth intervals to be screened
    - (2) Specific grout mixtures and emplacement methods to be used
  - d. Aquifer test methods
  - e. Alternative exploration methods (such as geophysical methods)
5. Record keeping procedures for:
  - a. Well logs, boring logs, drilling logs, pit logs
  - b. On-site precipitation data

## DETAILED SITE INVESTIGATION

### General Procedures for Detailed Site Investigations

The potential disposal area construction permit applicant is responsible for retaining a qualified groundwater scientist to provide the GSP with a complete and accurate evaluation of the geologic and hydrologic conditions of the proposed solid-waste disposal area. All geologic and geohydrologic work must be completed under the direction of a geologist registered in the State of Missouri per RSMo 256.450 through 256.483 and the rules promulgated pursuant thereto. A consultant who subcontracts the drilling of piezometers or monitoring wells must hold a restricted or a nonrestricted monitoring well installation contractor's permit. Drilling must be done by a driller holding a nonrestricted monitoring well installation contractor's permit and appropriate permit numbers must be prominently displayed on all drill rigs used for site characterization, as required by 10 CSR 23 Chapters 1, 2 and 4.

The minimum standards for a detailed site investigation are partially dependent on site-specific geologic conditions. As a result of data gathered during the detailed site investigation, the GSP may require additional investigations to adequately define the geology and hydrology of the site.

Geophysical methods may be used to help characterize the site; however borings or pits must be located and drilled to verify the results of the geophysical survey(s). Where geologic structures or solution features which negatively impact groundwater monitoring or the structural integrity of a disposal area are present or suspected, additional borings or pits will be required to adequately define the extent and distribution of these features across the site, and to determine the relationships between these features and geologic units.

Sinkholes, solution-enlarged fractures and caves may have very small, near-surface expressions that a boring program would not be expected to detect. Sites will routinely be rejected during

preliminary site investigations where the site is characterized by solution features which may negatively impact groundwater monitoring or the structural integrity of a disposal area.

### **Field Direction**

A qualified groundwater scientist must direct the excavation of all pits, the drilling of all borings, the performance of any geophysical surveys, and the installation, development and abandonment of all exploratory wells or piezometers. Interpretations of geological data must be conducted under the direction of a geologist registered in the State of Missouri per RSMo 256.450 through 256.483.

A qualified groundwater scientist must supervise all field testing to determine the geologic and hydrologic characteristics of the material encountered or intended for use at the proposed site. A qualified groundwater scientist must maintain accurate and complete field notes of the investigation activities.

A land surveyor registered in the state of Missouri must determine the location and elevation of all wells and piezometers. Borings, excavation pits and all transects performed as part of a geophysical exploration will be located to the nearest one-tenth (0.1) foot by a land surveyor registered in the State of Missouri. All elevation measurements, grid patterns, and coordinates must be established and used consistently throughout the investigation and referenced to North American Datum (NAD) 1983 and National Geodetic Vertical Datum (NGVD) 1929 or North American Vertical Datum (NAVD) 1988. Monitoring well and piezometer measuring-point elevations must be accurate to the nearest one-hundredth (0.01) foot.

### **Field Investigations**

The minimum requirements for conducting a detailed subsurface investigation are listed below. Alternative investigation techniques and procedures may be approved at the discretion of the GSP. Additional borings or pits may be required, subject to site-specific conditions, to fully characterize the geology of the area. The number of borings, pits, and piezometers required is dependent upon the anticipated size of the proposed disposal area and the existence of structural or solution features which may negatively impact groundwater monitoring or the structural integrity of the disposal area. Borings that are not used as monitoring wells or piezometers must be permanently abandoned and reported as per 10 CSR 23-4. Exploration pits must be backfilled using native material, compacted to natural density condition, and their locations clearly marked on site maps.

#### **1. Surficial Materials**

A qualified groundwater scientist must determine the thickness, and geotechnical characteristics of significant geologic units above competent bedrock. At least one boring must be drilled per two acres of the proposed disposal area. All borings must be extended to

at least 25 feet below the anticipated disposal area sub-base grade or to competent bedrock, whichever is less. All borings must be continuously sampled. Exploration pits may be substituted for borings in areas where the surficial materials can be fully penetrated by the pits.

If geologic structures or solution features which negatively impact groundwater monitoring or the structural integrity of a disposal area are present or suspected, at least one boring must be completed per acre of the proposed disposal area. All of these borings will be drilled to competent bedrock. Exploration pits may be substituted.

The borings or pits must be distributed in a grid pattern across the site or located in a manner that will optimize characterization of the site. Deviations from a regular grid pattern must be approved by the GSP. Location and elevation of borings or pits must be recorded by a registered land surveyor.

## 2. Aquifers

A qualified groundwater scientist must determine the depth, thickness and lateral extent of the uppermost aquifer(s) beneath the proposed site and additional aquifers which are potentially at risk (as determined by the GSP).

Piezometers are required to adequately characterize the groundwater at the proposed site. There must be at least five piezometers, or one piezometer per four acres of disposal area, whichever is greater, installed in each aquifer to be characterized. Piezometer construction and development standards must be in accordance with 10 CSR 23-4.

All piezometers must be distributed in a grid pattern across the proposed site or located in a manner that will optimize characterization of the site. Deviations from a regular grid pattern must be approved by the GSP. An adequate number of piezometers must be located outside the anticipated fill area to sufficiently characterize each aquifer. The measuring-point elevation of the piezometers must be determined by survey. Additional piezometers may be required to demonstrate the effectiveness of confining beds and extent of aquifers. If geophysical methods are used, piezometers must be installed to verify the results of the geophysical survey(s).

A continuously recording precipitation gauge, capable of measuring precipitation events greater than one-tenth (0.1) inch, must be installed at the site concurrent with, or prior to, installation of piezometers. Data from the gauge will be used to interpret any fluctuations in potentiometric level(s) throughout the site characterization period and may be used for other purposes later, at the discretion of the department.

The hydraulic conductivity of the uppermost aquifer(s) beneath the proposed disposal area must be determined. The hydraulic conductivity must be determined in one out of every four borings (25% of the borings drilled on-site) for each aquifer tested. The hydraulic conductivity must be determined in the field. Accepted field tests are *in situ* slug and/or pump tests which isolate the geologic unit of interest. Accepted laboratory tests to determine

hydraulic conductivity include a flexible wall permeameter test or other procedure approved by the department.

### 3. Other Bedrock Units

A qualified groundwater scientist must determine the thickness, depth and lateral extent of the uppermost confining bedrock unit as it pertains to the proposed solid-waste disposal area. If the uppermost confining unit is more than 150 feet below the lowest anticipated sub-base grade, the GSP will determine the need for characterization of the unit. At least one boring per four acres of the proposed disposal area or five borings, whichever is greater, must be drilled to characterize soil and bedrock units below the anticipated sub-base grade of the disposal area. At least three of these borings per soil/bedrock unit must be continuously sampled, unless otherwise approved by the GSP. The depth of these borings will be determined based on geohydrologic conditions at the site.

For investigation of horizontal expansions and investigations near previously existing disposal areas, piezometers and borings must be located within 500 feet of the limits of the existing filled area such that there is a minimum of one piezometer per 400 lineal feet extending along the periphery of the existing filled area. As determined by the GSP, if geologic structures or features which negatively impact groundwater monitoring or the structural integrity of a disposal area are present or suspected, one piezometer/boring must be installed per 200 lineal feet along the periphery of the existing filled area. Piezometers will not be installed within the boundary of the pre-existing waste.

### Records (Field Notes)

The geologic materials in each boring, exploration pit, piezometer or well must be logged in detail during drilling or excavation by a qualified groundwater scientist. The qualified groundwater scientist must describe and record the physical and lithologic characteristics of each geologic material encountered as well as other information pertaining to drilling or excavation. Field logs and notes pertaining to the field investigated shall be retained by the applicant until closure.

At a minimum, a qualified groundwater scientist must, in the field, note on a descriptive log the following:

1. Texture of geologic material
2. Color (qualitative descriptions - include mottling) of geologic material
3. Relative degree of saturation (description)
4. Voids
5. Geologic origin
6. Secondary permeability features
7. Zones of incomplete sample recovery
8. Depth at which water is encountered
9. Depth and rate of drilling fluid gain or loss
10. Type and size of drilling/excavation equipment

11. Drilling rate (blow counts)
12. Packer tests (intervals tested and results)
13. Start and stop times for drilling/excavation
14. Names of field personnel
15. Date, time, weather conditions
16. Depth to water upon completion

All borings or pits must be observed until the water level has stabilized or for at least 24 hours following completion. This observation must determine if groundwater has entered the hole, the depth to water, and if possible, the water bearing zones. During observation all borings and pits must be protected from rainfall and runoff.

### **Laboratory Analysis**

All samples collected for laboratory analyses must be clearly labeled (sampling location - boring/pit number, depth, date of sample) and preserved. Soil samples not destroyed by testing and rock core must be stored, protected from the weather, and available for the GSP's inspection in Missouri until closure.

### **Laboratory Testing**

A laboratory must be retained to conduct geotechnical analyses for each unconsolidated material encountered to verify field observations. The following must be recorded for each sample tested.

1. Texture
2. Color (based on a Munsell color chart - include mottling)
3. Grain size distribution (reported in percent)
4. Soil classification (reported in Unified Soil Classification System)
5. Moisture content (reported in percent)
6. Liquid Limit
7. Plasticity Index
8. Standard Proctor density
9. Names of lab personnel
10. Date

### **Monitoring Wells**

While monitoring wells are not normally required as part of the detailed site investigation, background water quality data will be required prior to operation of a solid-waste disposal facility. The number of monitoring wells required will be dependent upon the presence and number of aquifers monitored and the presence and number of confining beds. Well construction standards and development must be in accordance with 10 CSR 23-4.

A minimum of one monitoring well must be located hydraulically upgradient and three monitoring wells located hydraulically downgradient for each aquifer monitored. These wells must be located outside of but not greater than 500 feet from the anticipated limit of the area. A minimum of four wells must be screened or open to each aquifer monitored. The screen and/or filter-pack must not extend through confining units.

For sites characterized by the GSP as having geologic structures or solution features which negatively impact groundwater monitoring or the structural integrity of a disposal area, additional monitoring wells must be installed to adequately collect groundwater data.

### **Water Level Data Collection**

Measurements of water level, to the nearest hundredth (0.01) of a foot must be made every month for one year for all wells and piezometers. Water-level measurements in all wells and piezometers should be made within a 48-hour time period, if possible. Additional measurements may be necessary as determined by the GSP.

## **PRESENTATION OF DATA AND INTERPRETATIONS**

The following information must be provided in the order specified below. The report must be prepared under the direction of a qualified groundwater scientist who is a geologist registered in the State of Missouri per RSMo 256.450 through 256.483 and the rules promulgated pursuant thereto. This person must sign and seal the report.

1. Table of Contents
2. Introduction (general information about the study area and the study)
  - A. Location:  
A written narrative of the geographic setting with legal description (section, township, and range)
  - B. Regional Geology:  
A written narrative describing the regional lithologic, stratigraphic, structural, and hydrologic settings of the area
  - C. Historic Land Uses:  
A written narrative describing previous land use such as mining or mineral exploration

The above sections must address the siting restrictions listed in 10 CSR 80-3.010(4)(B) pertaining to sites adjacent to or in the vicinity of airports, floodplains, wetlands, faults and seismic impact zones.

3. Method of Study

A written narrative must be provided which describes field and laboratory procedures used to characterize geologic and hydrologic conditions of the site. Standardized laboratory and field procedures may be referenced. All other procedures must be described in detail.

4. Results of Investigation

A written detailed narrative must be provided that describes the site-specific geology and hydrology based on data collected. The narrative must include explanations of any anomalous data. Interpretations of results must be presented in a clear and concise manner.

5. Conclusions

A written narrative must be provided that details how the site-specific geology and hydrology will impact the design of the disposal area and groundwater monitoring system. The narrative must assess the inadequacies of the investigation and propose future investigations if needed. The narrative must describe the proposed monitoring system design.

6. References

All published information sources used in the compilation or research of the hydrogeologic investigation must be listed.

7. Appendices

The appendices of the site characterization report must include:

- ▶ Compiled logs of all borings, excavations, wells and piezometers.
- ▶ The raw data for any and all tests (e.g., pumping tests).
- ▶ All additional information that may facilitate the GSP's assessment of the acceptability of the proposed site.

A. Logs

Lithologic logs of all borings and excavations, including well construction diagrams, must be provided. Each log must include borehole identification, borehole grid location, soil and rock description, sample depths, methods of sampling, sampling date, land surface elevation, borehole total depth, moisture content, and test results such as: blow counts, vane shear, or pocket penetrometer measurements.

B. Tables

Presentations of tabular data that must be supplied include the following:

- (1) All borehole, well and piezometer construction data. Such data should include the borehole, well or piezometer identification, grid location, total depth, surface elevation and, if applicable, screened interval and hydrogeologic unit monitored.
- (2) Monthly groundwater elevation measurements for each piezometer or well. The table(s) should indicate the well or piezometer identification, depth to water from measuring-point, groundwater elevation and date of measurement.
- (3) The results of all unconsolidated-material testing. The table(s) must include the sample location, depth, sampling date, and test results.

- (4) The results of all hydrologic testing. The table(s) must include the well or piezometer identification, method and date of test, depths of interval tested, hydrologic unit tested and results.
- (5) The daily precipitation data collected at the site.

### C. Maps

All detailed site maps for the report must be drawn on a scale where one inch equals 400 feet or less. As appropriate, maps should be drawn on a consistent scale. All maps must include a scale, north arrow, and a clear and concise legend describing all of the symbols used on the map. More than one map will be required to include the following information:

- (1) A base map showing initial topography (on 5 foot contour intervals unless otherwise specified by the GSP), borrow area(s), and proposed disposal area boundary.
- (2) Maps(s) showing land use, ownership, residences, septic systems, lateral lines, buildings, wells, cisterns, mined or quarried areas, mine shafts, spoil piles, and all other man-made features within 1/4 mile of the proposed disposal area boundary.
- (3) Map(s) showing springs, water courses, streams, lakes, caves, sinkholes, rock outcrops, and other significant geologic features within 1/4 mile of the proposed disposal area boundary.
- (4) Map(s) showing all borings, excavations, piezometers, and wells constructed for the study.
- (5) Monthly piezometric maps per aquifer to be monitored. The maps must include labels showing water elevations next to each well or piezometer and must indicate the date when the water elevation was measured.
- (6) Map(s) showing inferred results of geophysical explorations with survey tracks (if applicable).
- (7) Map(s) locating cross-sections showing borings used in cross-section representation.
- (8) Map(s) locating floodplains, wetlands and fault(s).
- (9) Map delineating seismic impact zones.
- (10) Bedrock contour map (where applicable).

### D. Cross-Sections

Geologic cross-sections must be constructed through all appropriate borings both perpendicular and parallel to the facility baseline as well as along and across all transects which include major geologic features such as faults, sinkholes, and buried valleys. At least one cross-section must be constructed parallel to groundwater flow. The subsurface conditions of the site must be illustrated in these cross-sections. Where more than one interpretation may be reasonably made, conservative assumptions must be used.

The following information must be included on the cross-sections:

- (1) A dashed line or question mark for inferred lithostratigraphic boundaries, a number or symbol to label major soil units (instead of extensive shading) and legend containing a description of the soil units.



- (2) The anticipated sub-base, and final grades for the proposed disposal area.
- (3) All boring logs, the Unified Soil Classification System soil classifications and the geologic origin for each soil unit. The results of all lab and field tests, and all well construction details including screen and seal length along with the stabilized water elevations should be shown on the logs beside the descriptions of the materials encountered.

E. Aerial Photographs

One or more vertical aerial photographs, representing the entire area of the proposed site plus the area within 1/4 mile of the site must be included in the report. The photos must be taken between November 1 and March 30, within two years of the submittal of the report unless significant excavation has occurred at the site. If significant excavation has occurred at the site during the previous two years, the photos must be taken between November 1 and March 30, within one year of the submittal of the report. The extent of the proposed disposal area, the anticipated limits of the proposed fill area and a north arrow must be added to the photos. Photocopies of the photographs will not be accepted.



Form GSP-1  
REQUEST FOR PRELIMINARY INVESTIGATION  
PROPOSED SOLID-WASTE DISPOSAL AREA SITE

Complete and return to: Missouri Department of Natural Resources, Division of Geology and Land Survey,  
Geological Survey Program, P.O. Box 250, Rolla, MO 65402

Land Owner's Name: \_\_\_\_\_

Owner's Address/Phone: \_\_\_\_\_

Owner Signature (indicates permission to access property): \_\_\_\_\_

Name of Person Requesting Investigation: \_\_\_\_\_

Requestor's Address/Phone: \_\_\_\_\_

Name of Proposed Facility Operator (Company or Individual): \_\_\_\_\_

Legal Description: \_\_\_\_ 1/4, \_\_\_\_ 1/4, \_\_\_\_ 1/4, Sec. \_\_\_\_, T. \_\_\_\_ N., R. \_\_\_\_ E./W.,

County: \_\_\_\_\_ Quadrangle Name: \_\_\_\_\_

Check type of landfill proposed:

\_\_\_\_ Sanitary Landfill      \_\_\_\_ Demolition Landfill      \_\_\_\_ Utility Waste Landfill  
\_\_\_\_ Special Waste \* Landfill (specify type of waste) \_\_\_\_\_

Estimated size of facility, acres: \_\_\_\_\_

**(Sketch map must be submitted with request)** Sketch map or photocopy of topographic map must contain the following information: all known wells, springs, sinkholes, caves, mines, streams, ponds, roads, buildings and dwellings within 1/4 mile of the facility. Show the estimated boundaries of the proposed facility and any existing borings, test pits or excavations which expose soil or bedrock. Include a scale and north arrow on sketch map.

Comments: \_\_\_\_\_

**SIGNATURE OF PERSON REQUESTING INVESTIGATION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

\* A special waste is defined as "solid wastes requiring handling other than that normally used for municipal waste."

### 10 CSR 80-2.020 Permit Issuance, Construction Permits, Operating Permits, Emergency Permits, and Exemptions.

*PURPOSE: This rule describes the permitting requirements for solid waste disposal areas and solid waste processing facilities including the procedures and requirements for obtaining the appropriate permits. This rule also designates which solid waste disposal and processing activities are exempt from solid waste permitting requirements.*

#### (1) General Requirements.

(A) Any disposal or processing of solid waste shall comply with the permitting requirements of this rule unless specifically exempted under section (9) of this rule.

(B) All solid waste disposal areas and solid waste processing facilities shall be located, designed and operated in conformity with the rules in 10 CSR 80, as authorized by section 260.225.1(3), RSMo.

(C) The owner/operator of any solid waste disposal area or solid waste processing facility also shall comply with any other applicable state and federal environmental rules, laws, regulations or other requirements.

(D) A construction and operating permit issued under this rule for a solid waste disposal area or solid waste processing facility shall be issued to the owner/operator, jointly.

(E) The department may, at any time during the life of a solid waste disposal area or solid waste processing facility, review the permit and require the solid waste disposal area or solid waste processing facility to comply with the currently applicable requirements of Chapter 260, RSMo and the corresponding rules.

(F) Each permit issued under this rule shall contain such terms and conditions as the department determines necessary to prevent or minimize potential health hazards, a public nuisance or environmental pollution. Construction and operation of the solid waste disposal area or solid waste processing facility shall be conducted in accordance with the terms and conditions of the permit—

1. The effective date of a permit is the date of issuance; and

2. The effective date of the denial of a permit is the date the denial is issued.

(G) Each permit for operation of a solid waste processing facility or solid waste disposal area shall be issued only to the person named in the application. Construction and operating permits are transferrable as a permit modification pursuant to section 260.205, RSMo and 10 CSR 80-2.020(4)(B).

(H) After the effective date of this rule, subcontracting the operation of the facility

without submitting a change of operator permit modification within thirty (30) days of such a change will be considered to be operating without a permit. The new operator will be allowed to operate the facility while the change of operator permit modification is being reviewed.

(I) The applicant shall request and hold a preapplication meeting with the department prior to submission of a construction permit application. This meeting shall include, at a minimum, discussion on the proposed application, review of the required fees and time frames, and a discussion of the departments requirements and regulations.

#### (2) Solid Waste Disposal Area Permits.

##### (A) Construction Permits.

1. Any person desiring to construct a solid waste disposal area or horizontally expand the acreage specifically designated for the placement of solid waste in an existing permitted solid waste disposal area shall make an application to the department for a construction permit. A construction permit shall be obtained prior to the beginning of any solid waste disposal area construction activities, including any clearing of vegetation, earth work or construction of appurtenances (such as lagoons, settling basins and monitoring wells) associated with the disposal area. This requirement does not apply to detailed site investigation activities or general site improvements.

2. An application shall consist of the following items:

A. A completed Application for Construction Permit form furnished by the department;

B. Detailed plans and specifications prepared or approved by a professional engineer containing the information necessary to comply with the requirements of the Missouri Solid Waste Law and rules;

C. Evidence of financial responsibility as required by section 260.205, RSMo and 10 CSR 80-2.020(7);

D. Closure and post-closure plans as required by 10 CSR 80-2.030(4);

E. Evidence of compliance with all applicable local planning and zoning requirements as per section (6) of this rule;

F. The names and addresses of all recorded owners of real property located either adjoining or within one thousand feet (1,000') of the (proposed) solid waste disposal area;

G. Nonreturnable application fee as specified in section 260.205, RSMo and paragraph (2)(A)5. of this rule;

H. The detailed site investigation report to characterize the subsurface geologic

and hydrologic conditions that has been approved by the Division of Geology and Land Survey for disposal area applications submitted on and after January 1, 1996;

I. A completed violation history disclosure statement as required by 10 CSR 80-2.070; and

J. The applicant shall submit copies of applications for any applicable Water Pollution Control Program (WPCP) permits or approvals.

3. The applicant for a solid waste disposal area shall submit five (5) copies of the application to the department's Solid Waste Management Program.

4. The review, approval and denial of a construction permit application shall conform to the provisions of this paragraph—

A. Within twelve (12) consecutive months of the receipt of an application for a construction permit, the department shall approve or deny the application;

B. Within ninety (90) days of receipt of the initial application and within one hundred eighty (180) days of receipt of subsequent revisions, the department will complete a review of the application to determine compliance with the Missouri Solid Waste Management Law and rules and provide a written decision to the applicant.

(I) When the review reveals that the application complies with the Missouri Solid Waste Management Law and rules, the department shall, within the twelve (12)-month period, approve the application and issue a construction permit.

(II) When the review reveals that the application does not comply with the Missouri Solid Waste Management Law and rules, the department may either send—

(a) A comment letter to the applicant explaining why the application is deficient; or

(b) A denial of the application along with the reasons for denial; and

C. Should a comment letter be issued per 10 CSR 80-2.020(2)(A)4.B., the applicant shall, within ninety (90) days from receipt of the comment letter, submit to the department a complete response. If the department does not receive a complete response from the applicant within ninety (90) days, the department may disapprove the application and deny the permit.

5. The applicant for a construction permit shall remit application and review fees to the department as specified in this paragraph.

A. The applicant shall remit to the department a nonreturnable application fee of two thousand dollars (\$2,000).

B. The applicant shall reimburse the department for review costs up to an amount

of eight thousand dollars (\$8,000). The department will submit a statement to the applicant for review costs upon completion of its review of the application.

C. Payments authorized in paragraphs (2)(A)5.A. and B. of this rule shall be made by check or money order made payable to the Missouri Department of Natural Resources. No further action will be taken on an application until the department receives a check for outstanding fees or review costs. When a check used for payment is returned to the department as nonnegotiable, review of the application will cease, and the applicant will be so notified. No further action will be taken until payment has been resubmitted in the form of a cashier's check or money order made payable to the Missouri Department of Natural Resources.

D. The department shall not collect the review costs authorized in 10 CSR 80-2.020(2)(A)5.B. of this rule unless the department complies with the review time limits established in section 260.205, RSMo and 10 CSR 80-2.020(2)(A)4.

(B) Operating Permits.

1. Any person desiring to begin the operation of a solid waste disposal area or a horizontal expansion of an existing solid waste disposal area, shall make an application to the department for an operating permit. An operating permit shall be obtained prior to the receipt of waste in the initial area prepared to receive waste in the disposal area or the horizontal expansion area. Approval to accept waste in subsequent areas prepared to receive waste shall be handled in accordance with 10 CSR 80-2.020(4). If an application for an operating permit for the solid waste disposal area is not submitted to, and received by the department within sixty (60) months, the applicant, prior to submittal of an operating permit application, shall—

A. Hold a public awareness and community involvement session, solicit comments, and respond;

B. Submit to the department for approval any necessary changes to the design and operation of the facility so as to be in compliance with currently applicable law and rules; and

C. Submit to the department an updated violation history disclosure statement.

2. An application for an operating permit shall consist of the following items:

A. The owner shall execute an easement which allows the department, its agents or its contractors access to the permitted area to complete work specified in the closure plan, to monitor or maintain the solid waste

disposal area or to take remedial action during the post-closure period;

B. The owner shall submit evidence to the department that a notice and covenant running with the land have been recorded with the recorder of deeds in the county where the solid waste disposal area is located. The notice and covenant shall specify the following:

(I) The property has been permitted as a solid waste disposal area; and

(II) Use of the land in any manner which interferes with closure plans, and where appropriate, post-closure plans filed with the department is prohibited;

C. The owner/operator shall submit base data for the quality of groundwater in accordance with the requirements of 10 CSR 80-3.010(11)(C)3. or 10 CSR 80-4.010(11)(C)3. as appropriate;

D. The owner/operator shall submit to the department, by certified mail or hand delivery, a letter signed by the owner/operator and a professional engineer stating that all construction required before initial operations of the solid waste disposal area have been completed in compliance with the construction permit and approved engineering plans;

E. The owner/operator shall submit evidence that the permanent monument and boundary markers required by 10 CSR 80-3.010(7)(B) have been placed by a registered land surveyor in accordance with the approved plans;

F. For sanitary landfills, and for demolition landfills permitted after the effective date of this rule, the owner/operator shall submit an approvable financial assurance instrument for post-closure cost in the amount and form required under 10 CSR 80-2.030(4);

G. The applicant shall submit copies of any applicable Water Pollution Control Program (WPCP) permits or approvals; and

H. The owner/operator shall submit copies of all quality assurance/quality control documentation per the requirements of 10 CSR 80-3.010(6).

3. The applicant for an operating permit shall submit three (3) copies of the application to the department.

4. The review, approval and denial of an operating permit application shall conform to the provisions of this paragraph.

A. Within sixty (60) days from the date of receipt of an application for an operating permit, the department shall issue or deny the application.

(I) When the department's review reveals that the application complies with the Missouri Solid Waste Management Law and rules and approved plans and specifications,

the department shall approve the application and issue an operating permit.

(II) When the department's review reveals that the application does not comply with the Missouri Solid Waste Management Law and rules, the construction permit and the approved plans and specification, the department shall issue a report stating reasons for denial.

B. An operating permit shall be issued for the life of the disposal area.

(3) Solid Waste Processing Facility Permits.

(A) Construction Permits.

1. Any person desiring to construct a solid waste processing facility shall apply to the department for a construction permit. A construction permit shall be obtained prior to the beginning of any solid waste processing facility construction activities, including any clearing of vegetation or earth work.

2. An application for a construction permit shall consist of the following items:

A. A completed Application for Construction Permit on a form furnished by the department;

B. Detailed plans and specifications prepared or approved by a professional engineer containing the information necessary to comply with the Missouri Solid Waste Law and rules;

C. Evidence of financial responsibility as required by section 260.205, RSMo and 10 CSR 80-2.020(7);

D. Evidence of compliance with all applicable local planning and zoning requirements as per section (6) of this rule;

E. A completed violation history disclosure statement as required in 10 CSR 80-2.070;

F. Nonreturnable application fee as specified in section 260.205, RSMo and in subparagraph (3)(A)5.A. of this rule; and

G. The applicant shall submit copies of applications for any applicable Water Pollution Control Program (WPCP) permits or approvals.

3. The applicant for a solid waste processing facility shall submit four (4) copies of the application to the department.

4. The review, approval and denial of a construction application shall conform to the provisions of this paragraph.

A. Within twelve (12) consecutive months of the receipt of an application for a construction permit for a solid waste incinerator, a municipal solid waste composting facility or a material recovery facility and within one hundred eighty (180) days of receipt of an application for any other solid waste processing facility, the department shall approve or deny the application.

B. Within ninety (90) days of receipt of the initial application and within one hundred eighty (180) days of subsequent revisions for an incinerator, a municipal solid waste composting facility or a material recovery facility, and within forty-five (45) days of receipt of the initial application and within ninety (90) days of receipt of subsequent revisions for any other solid waste processing facility, the department shall complete a review of the application to determine compliance with the Missouri Solid Waste Management Law and rules and provide a written decision to the applicant.

(I) When the review reveals that the application complies with the Missouri Solid Waste Management Law and rules, the department shall, within a twelve (12)-month period for an incinerator, a municipal solid waste composting facility or a material recovery facility or a one hundred eighty (180)-day period for any other processing facility, approve the application and issue a construction permit.

(II) When the review reveals that the application does not comply with the Missouri Solid Waste Management Law and rules, the department may either send—

(a) A comment letter to the applicant explaining why the application is deficient; or

(b) A denial of the application along with the reasons for denial.

C. Should a comment letter be issued per 10 CSR 80-2.020(3)(A)4.B. the applicant shall, within ninety (90) days for an incinerator, a municipal solid waste composting facility or a material recovery facility, or forty-five (45) days for any other solid waste processing facility from receipt of the comment letter, submit to the department a complete response. If the department does not receive a complete response from the applicant within ninety (90) days for an incinerator, a municipal solid waste composting facility or material recovery facility, or forty-five (45) days for any other solid waste processing facility, the department may deny the application.

5. The applicant for a construction permit shall remit application and review fees to the department as specified in section 260.205, RSMo and this paragraph.

A. The applicant shall remit to the department a nonreturnable application fee of one thousand dollars (\$1,000).

B. The applicant shall reimburse the department for review costs up to an amount of four thousand dollars (\$4,000). The department will submit a statement to the applicant for review costs upon completion of its review of the application.

C. Payments authorized in subparagraphs (3)(A)5.A. and B. of this rule shall be made by check or money order made payable to the Missouri Department of Natural Resources. No further action will be taken on an application until the department receives a check for outstanding fees or review costs. When a check used for payment is returned to the department as nonnegotiable, review of the application will cease, and the applicant will be so notified. No further action will be taken until payment has been resubmitted in the form of a cashier's check or money order made payable to the Missouri Department of Natural Resources.

D. The department will not collect the review costs authorized in 10 CSR 80-2.020(3)(A)5.B. of this rule unless the department complies with the review time limits established in section 260.205, RSMo and 10 CSR 80-2.020(3)(A)4.A.

(B) Operating Permits.

1. Any person desiring to begin the operation of a solid waste processing facility shall make an application to the department for an operating permit. An operating permit shall be obtained prior to the receipt of waste at the solid waste processing facility. If an application for an operating permit for the solid waste processing facility is not submitted to, and received by the department within sixty (60) months, the applicant, prior to submittal of an operating permit application, shall—

A. Hold a public awareness and community involvement session, solicit comments, and respond;

B. Submit to the department for approval any necessary changes to the design and operation of the facility so as to be in compliance with currently applicable law and rules; and

C. Submit to the department an updated violation history disclosure statement.

2. An application for an operating permit shall consist of the following items:

A. A letter signed by the owner/operator and a professional engineer stating that all construction required before the initial operations of the facility have been completed in compliance with the construction permit and approved engineering plans;

B. A set of construction as-builts and specifications prepared or approved by a professional engineer; and

C. The applicant shall submit copies of any applicable Water Pollution Control Program (WPCP) permits or approvals.

3. The applicant for an operating permit shall submit three (3) copies of the application to the department.

4. The review, approval and denial of an operating permit application shall conform to the provisions of this paragraph.

A. Within sixty (60) days from date of application for an operating permit the department shall issue or deny the application.

(I) When the department's review reveals that the application complies with the Missouri Solid Waste Management Law and rules and approved plans and specifications, the department shall approve the application and issue an operating permit.

(II) When the department's review reveals that the application does not comply with the Missouri Solid Waste Management Law and rules, the permit and the approved plans and specifications, the department shall issue a denial of the application.

B. An operating permit shall be issued for the life of the processing facility.

(4) Permit Modifications.

(A) Any permittee desiring to make any change(s) to the approved engineering report or plans for the design, construction, operation, closure or post-closure of either a solid waste disposal area or a solid waste processing facility shall submit a permit modification request to the department. Prior to implementing any change(s), the permittee shall obtain a permit modification approval for the proposed change from the department. Permit modification requests shall consist of the following:

1. A letter signed by the permittee which both briefly describes and requests approval of the changes being proposed;

2. Detailed plans and specifications prepared by a professional engineer containing all necessary information reflecting the proposed changes to the currently approved engineering report and plans and complying with the Missouri Solid Waste Management Law and rules; and

3. For a proposed vertical expansion of an existing solid waste disposal area, evidence of compliance with local planning and zoning requirements as required by 10 CSR 80-2.020(6).

(B) Construction and operating permits are transferrable as a permit modification. Request for permit modification to transfer ownership and/or operator of the permit shall consist of the following:

1. A letter requesting transfer of the owner/operator of the permit. The letter shall identify the proposed new owner/operator. The letter shall be signed by both the existing owner/operator and the proposed new owner/operator;

2. A disclosure statement for the proposed permittee listing violations contained in 10 CSR 80-2.070;

3. The operation and design plans for the facility or area shall be updated to comply with currently applicable law and rules; and

4. A financial assurance instrument in such amount and form as prescribed by the department shall be provided for solid waste disposal areas by the proposed permittee prior to transfer of the permit. The financial assurance instrument of the original permittee shall not be released until the new permittee's financial assurance instrument has been approved by the department, and the transfer of ownership is complete.

(C) For approval of subsequent sections or phases of disposal areas, prepared to receive waste, the permittee shall submit the following information:

1. Detailed as-built plans and specifications and quality control/quality assurance information showing that all pre-operational construction of the newly lined area have been completed in accordance with the approved engineering plans; and

2. A letter signed by the owner/operator and a professional engineer stating that the pre-operational construction of the newly lined area have been completed in compliance with the permit and approved engineering plans.

(D) The review, approval and denial of a permit modification request shall conform to the following requirements:

1. Within twelve (12) consecutive months of the receipt of a request for a permit modification for vertically expanding a solid waste disposal area, the department shall approve or deny the request. Within ninety (90) days of receipt of the initial request and within sixty (60) days of receipt of subsequent revisions, the department shall complete a review of the request to determine compliance with the Missouri Solid Waste Management Law and rules and provide a written decision to the permittee;

2. Within sixty (60) days of the receipt of a request for a permit modification for placement of waste on newly constructed lined areas as required by 10 CSR 80-2.020(4)(C), the department shall complete a review of the request and, when appropriate, complete an inspection of the area to determine compliance with the conditions of the permit and the approved engineering plans. If for any reason the department fails to complete a review within the time frame specified herein, the permittee may begin waste disposal in the new area in accordance with the approved operating plans. However, this does not represent or imply department approval of the liner. The permittee is still responsible, if necessary, to take whatever action is required by the department to either bring the

liner into compliance, or demonstrate that the liner complies with requirements of the Missouri Solid Waste Management Law and rules and the approved plans;

3. Within six (6) consecutive months of the receipt of a request for a permit modification approval other than for modifications specified in (4)(D)1. and 2. of this rule, the department shall approve or deny the request;

4. When the review reveals that the request complies with the Missouri Solid Waste Management Law and rules, the department shall approve the request and issue a permit modification approval;

5. When the review reveals that the request does not comply with the Missouri Solid Waste Management Law and rules, the department may either issue—

A. A comment letter to the permittee explaining why the request is deficient; or

B. A denial of the request along with the reasons for denial; and

6. Should a comment letter be issued per 10 CSR 80-2.020(4)(D)5.A., the permittee shall, within sixty (60) days from receipt of the comment letter, submit to the department a complete response. If the department does not receive a complete response from the permittee within sixty (60) days, the department may deny the permit modification request.

(5) The department may issue emergency permits on a case-by-case basis. The applicant shall indicate that an emergency permit is necessary due to uncontrollable catastrophic events. The applicant shall provide general details on the operation of the facility and specify the length of time an emergency permit is requested.

(6) Evidence of Compliance with Local Requirements. An applicant for a solid waste disposal area or processing facility construction permit, as part of the application, shall submit evidence of compliance with local planning and zoning requirements.

(A) Satisfactory demonstration of compliance shall include either:

1. A letter from the local governing authority(ies) stating that there are no local planning and zoning requirements applicable to the proposed solid waste facility; or

2. A letter from the local governing authority(ies) stating that the proposed facility is in compliance with applicable planning and zoning requirements; or

3. A court order indicating that the proposed facility is exempt from local planning and zoning requirements.

(B) Legal opinions provided by the applicant concerning the inapplicability of local planning and zoning requirements are not satisfactory evidence of compliance.

(C) In the event that an applicant fails to provide evidence of compliance with local planning and zoning, the department shall issue a denial of the application.

(7) Evidence of Financial Responsibility. An applicant for solid waste disposal area or solid waste processing facility permit, as a part of the application, shall submit evidence of financial responsibility.

(A) An applicant for a solid waste disposal area permit may satisfy this requirement by obtaining the financial assurance instrument(s) required by 10 CSR 80-2.030(4)(B) for closure or post-closure care, or both.

(B) An applicant for a solid waste processing facility permit or for a solid waste disposal area permit which is part of an area permitted under sections 444.500-444.905, RSMo, shall satisfy this requirement by submitting a financial statement. As applicable, the financial statement shall include:

1. For counties, cities or other political subdivisions of the state, a copy of their most recent budget or annual audit report;

2. For a public corporation, a copy of the most recent annual financial report; and

3. For a private corporation, partnership or individual ownership, a copy of an audit of the corporation, partnership or individual ownership, prepared by an independent certified public accountant within the last twelve (12) months.

(8) In the event a person desires to operate a solid waste disposal area or solid waste processing facility for the disposal or processing of only special wastes and desires to operate differently from the procedures specified in 10 CSR 80-2.010 through 10 CSR 80-5.010, that person shall submit a written request with an application for a construction permit to the department requesting that such area or facility be allowed to operate differently from those procedures. The application shall explain in detail the characteristics of the special wastes. Special waste landfill and special waste processing facility as defined in 10 CSR 80-2.010(111) and (112), respectively, shall apply if the request is granted.

(A) The applications for construction and operating permits for special waste landfills or processing facilities shall include justification of any proposed design and operating procedures which differ from those provided in 10 CSR 80-2.010 through 10 CSR 80-5.010. Alternatives may only be proposed for design and operation requirements contained in Chapters 10 CSR 80-3 and 10 CSR 80-5. Special waste landfills are specifically prohibited from accepting those wastes listed at 10 CSR 80-3.010(3)(A).

(B) The department reserves the right to specify the time limit and any restrictions on

the permit and at any time to require alternation in design and operation as it deems necessary to protect the public health, to minimize environmental damage and to prevent nuisances.

(9) Permit Exemptions.

(A) The following types of activities, solid waste disposal areas or solid waste processing facilities are not required to obtain a permit provided that pollution, a public nuisance or a health hazard is not created:

1. Any area receiving only uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks and bricks for fill or reclamation;

2. Any on-site solid waste processing facility which processes solid waste from an individual household, single building or institution provided the facility is located on-site where the refuse originates;

3. Any properly managed disposal container of ten (10) cubic yards or less located in a rural area that receives residential solid waste from more than one (1) family unit as long as its contents are emptied and disposed of at a permitted solid waste disposal facility at least once per week;

4. The use of solid waste in normal farming operations;

5. The use of solid waste in the processing or manufacturing of products;

6. The disposal by an individual of solid waste resulting from his/her own residential activities on property owned or lawfully occupied by him/her;

7. The operation and/or closure of a waste stabilization lagoon, settling pond or other water or wastewater treatment facility which has a permit from the Missouri Clean Water Commission even though the facility may receive solid or semisolid waste materials so long as the facility complies with the provisions of 10 CSR 80-2.030(2)(B) regarding filing of the survey plat upon closure. A solid waste disposal area construction and operating permit shall be required for settling ponds intended for the permanent disposal of utility waste and where the owner/operator applies for a construction permit or approval from the Missouri Clean Water Commission after the effective date of this rule;

8. A recycling center or drop-off collection point that accepts source-separated or commingled recyclable materials;

9. The composting or co-composting of waste materials, other than municipal solid waste, generated by agricultural and domestic activities on property owned or lawfully occupied by the generator; or the composting or co-composting of yard waste, wood waste, paper waste and/or poultry waste as long as such activity has a permit or approval from

the Missouri Clean Water Commission. Composting or co-composting of municipal solid waste and/or sewage sludge is NOT exempted and requires a solid waste processing facility permit for construction and operation;

10. A hospital pursuant to section 260.203, RSMo;

11. The beneficial use of bottom ash or boiler slag generated primarily from the combustion of coal or other fossil fuels for snow and ice control; and

12. The beneficial use of fly ash generated primarily from the combustion of coal or other fossil fuels for concrete/flowable fill additive.

(B) The department may grant an exemption from having to obtain a solid waste disposal area permit for a proposal to beneficially reuse solid waste, provided that beneficial use and/or reclamation can be demonstrated and provided that pollution, a public nuisance or a health hazard will not be created. In the event a person desires to request an exemption from the requirement to obtain a permit, that person shall submit a detailed, written request to the department which includes the following information:

1. A detailed explanation of the beneficial use or reclamation that supports the request;

2. A detailed explanation with supporting documentation identifying the site location, surrounding land use, and site characteristics;

3. An estimate of the quantity of waste needed to complete the project, the length of time required for completing the project and documentation specifying the source of the waste;

4. A detailed description of the physical and chemical characteristics of the waste, background soils and water quality immediately within and/or adjacent to the project area. The description shall include supporting laboratory test data. The appropriate laboratory tests shall be determined in conjunction with the department, and shall include, at a minimum, Toxicity Characteristic Leaching Procedure (TCLP) testing analyses or modified TCLP testing analyses. Details regarding locations of samples and sampling and testing methods shall be provided. Testing analyses shall be performed on all applicable parameters (organic and/or inorganic substances) which comprise the waste. The detection limits for applicable constituents in the testing analyses shall be consistent with standard laboratory procedures. Sampling and analysis shall be conducted in accordance with U.S. EPA approved standard laboratory methods and procedures;

5. Verification that the placement of the waste will be kept above the seasonal high groundwater table, unless a variance is obtained from the Water Pollution Control Program (WPCP).

6. A detailed description of the proposed operational procedures for waste removal from the generator, transport, placement, compaction, dust control, erosion control and procedures for protecting the general aesthetics of the site;

7. Provisions for closing the area—

A. A description of the source, quality and quantity of cover required; and

B. A description of the type of vegetation to be established to prevent erosion; and

8. The exemption request must also include the following:

A. Name of the owner(s) of the property on which the proposed beneficial reuse operation will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;

B. Name of the operator(s) of the proposed operation;

C. A map showing land use within one thousand feet (1,000') of the proposed operation;

D. A management plan that describes and includes:

(I) Basic site design;

(II) Size of buffer zone;

(III) Site drainage control;

(IV) A list of the waste material to be beneficially reused;

(V) Quality and quantity of incoming waste material;

(VI) Type of technology to be used;

(VII) Odor and vector control and mitigation procedures; and

(VIII) Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation);

E. A copy of the application for any applicable Water Pollution Control Program permits or approvals;

F. A copy of the application for any applicable Air Pollution Control Program permits or approvals;

G. Evidence of compliance with local zoning and planning requirements;

H. Emergency contact phone number(s);

I. Final use or disposition of the material to be beneficially reused; and

J. A statement indicating what steps will be taken to ensure unacceptable waste is

not received and verification that the unloading of waste will be supervised.

(C) The department may grant exemptions for small scale pilot projects or demonstration projects. Such projects must be for a beneficial use and not exceed a period of one (1) year. The pilot project may be exempt after receipt of prior written approval from the department. The applicant must include:

1. Location and size of the property on which the proposed pilot project or demonstration project will be located;

2. Name of the owner(s) of the property on which the proposed project will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;

3. Name of the operator(s) of the proposed project;

4. A map showing land use within one thousand feet (1,000') of the proposed project;

5. A management plan that describes and includes:

A. Basic site design;

B. Size of buffer zone;

C. Site drainage control;

D. A list of the waste material to be used;

E. Quality and quantity of incoming waste material to be used;

F. Type of technology to be used;

G. Odor and vector control and mitigation procedures;

H. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation);

I. Frequency of testing;

J. Anticipated start date and length of project; and

K. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;

6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;

7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;

8. Evidence of compliance with local zoning and planning requirements;

9. Emergency contact phone number(s); and

10. Final use or disposition of the product.

(D) The department may grant an exemption from having to obtain a solid waste processing facility permit for the composting or

co-composting of solid waste not specifically addressed in 10 CSR 80-2.020(9)(A)9. (e.g., food waste) provided that beneficial use of the compost can be demonstrated and provided that the composting and beneficial use activities will not create pollution, a public nuisance or health hazard. In the event a person desires to request an exemption from the requirements to obtain a permit, that person shall submit a written request to the department which includes the following:

1. Location and size of the property on which the proposed composting or co-composting operation will be located;

2. Name of the owner(s) of the property on which the proposed composting or co-composting operation will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;

3. Name of the operator(s) of the proposed operation;

4. A map showing land use within one thousand feet (1,000') of the proposed operation;

5. A compost management plan that describes and includes:

A. Basic site design;

B. Size of buffer zone;

C. Compost pad surface material and slope;

D. Site drainage control;

E. A list of the waste material to be composted;

F. Quality and quantity of incoming waste material to be composted;

G. Type of compost technology to be used;

H. Odor and vector control and mitigation procedures;

I. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation); and

J. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;

6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;

7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;

8. Evidence of compliance with local zoning and planning requirements;

9. Emergency contact phone number(s); and

10. Final use or disposition of the compost.

(E) The department may grant an exemption from having to obtain a solid waste processing facility permit for the processing of construction and demolition waste provided that such activities will not create pollution, a public nuisance or health hazard. In the event a person desires to request an exemption from the requirements to obtain a permit, that person shall submit a written request to the department which includes the following:

1. Location and size of the property on which the proposed processing facility will be located;

2. Name of the owner(s) of the property on which the proposed processing facility will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;

3. Name of the operator(s) of the proposed operation;

4. A map showing land use within one thousand feet (1,000') of the proposed operation;

5. A management plan that describes and includes:

A. Basic site design;

B. Size of buffer zone;

C. A list of the waste materials to be processed;

D. Quality and quantity of incoming waste material;

E. Type of technology to be used;

F. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation); and

G. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;

6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;

7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;

8. Evidence of compliance with local zoning and planning requirements;

9. Emergency contact phone number(s); and

10. Final use or disposition of recovered materials and residual waste.

(F) The department may grant a general exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag generated primarily from the combustion of coal or other fossil fuels for beneficial use as road base or structural fill. The beneficial



use of type C fly ash and bottom ash or boiler slag for road base will be allowed if the total mixture of soil and ash beneath the road will not exceed two feet (2'). The beneficial use of type C fly ash and bottom ash or boiler slag for structural fill will be allowed provided the area to be disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.

(G) The department may grant a general exemption for the beneficial use of type C fly ash generated primarily from the combustion of coal or other fossil fuels for beneficial use as soil amendment or for soil stabilization. The beneficial use of type C fly ash for soil amendment will be allowed if the total mixture of soil and ash used will not exceed six inches (6"). The beneficial use of type C fly ash for soil stabilization will be allowed provided the area disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.

(H) The department may grant an exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag in amounts greater than those specified in subsections (9)(F) and (G) above, as long as the beneficial use activity has a permit or exemption from the Missouri Clean Water Commission.

(I) The department may grant a general exemption for the beneficial use of bottom ash or boiler slag for daily cover in a landfill.

(J) Any request for a general or specific exemption listed above shall be accompanied by information that describes why the use is beneficial and an explanation/evaluation of the environmental impact associated with the beneficial use.

*AUTHORITY: sections 260.205 and 260.225, RSMo Supp. 1996.\* Original rule filed Dec. 11, 1973, effective Dec. 21, 1973. Amended: Filed July 14, 1986, effective Jan. 1, 1987. Amended: Filed Jan. 5, 1987, effective June 1, 1987. Amended: Filed Jan. 29, 1988, effective Aug. 1, 1988. Amended: Filed Aug. 16, 1988, effective Dec. 29, 1988. Emergency amendment filed Sept. 29, 1993, effective*

*Oct. 9, 1993, expired Feb. 5, 1994. Amended: Filed May 3, 1993, effective Jan. 13, 1994. Amended: Filed March 17, 1992.\*\* Emergency rescission of the 1992 amendment filed March 19, 1997, effective April 1, 1997, expired Sept. 27, 1997. Amended: Filed Oct. 10, 1996, effective July 30, 1997. Rescission of the 1992 amendment filed April 3, 1997, effective Aug. 30, 1997.*

*\*Original authority: 260.203, RSMo (1986), amended 1988, 1992 and 260.225, RSMo (1972), amended 1975, 1986, 1988, 1990.*

*\*\*The Missouri Supreme Court in Missouri Coalition for the Environment, et al., v. Joint Committee on Administrative Rules, et al., Case No. 78628, dated February 25, 1997, ordered the secretary of state to publish this amendment. The Missouri Department of Natural Resources subsequently filed an emergency rescission of this amendment as well as a proposed rescission of this amendment which became effective August 30, 1997. See the above authority section for filing dates.*