

## **Title 132 - NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY**

### **Chapter 1 - DEFINITIONS**

001 "Active portion" shall mean that part of a facility or unit that has received or is receiving wastes and that has not been closed in accordance with these regulations.

002 "Agency" shall mean any combination of two or more municipalities or counties acting together under the Interlocal Cooperation Act, a natural resources district acting alone or together with one or more counties and municipalities under the Act, or any joint entity as defined in Section 13-803, Reissue Revised Statutes of Nebraska, 1943.

003 "Aquifer" shall mean a geological formation, group of formations, or part of a formation that is capable of yielding water to a well, spring, or other point of discharge, in usable amounts.

004 "Background" shall mean the levels of chemical, physical, biological and radiological constituents or parameters prior to an activity or pollution event, as determined by methods acceptable to the Department.

005 "Beneficial fill" shall mean the use of uncontaminated sand, gravel, stone, soil, rock, brick, concrete rubble, asphalt rubble, or similar material, or some combination thereof, for the purpose of erosion control, erosion repair, channel stabilization, landscaping, road bed preparation or other land improvement.

006 "CFR" shall mean the Code of Federal Regulations published by the Office of the Federal Register.

007 "Closure" shall mean those actions which are taken upon the cessation of the use of a solid waste management facility, which prepares the facility for post-closure care, and assures the protection of human health and the environment.

008 "Code" shall mean a molded, imprinted, or raised symbol on or near the bottom of a plastic bottle or rigid plastic container.

009 "Collection" shall mean the act of removing and conveying solid waste from the storage area to a solid waste management facility.

010 "Commencement of construction" shall mean any substantial action, such as clearing of land, excavation or other action that reflects a substantially irreversible commitment to physically construct a facility, or that may affect the environment of a facility. The term does not include: site exploration, necessary roads for site exploration, borings to determine foundation conditions, or other preconstruction monitoring, or testing to establish background information related to the suitability of the site for the protection of environmental values.

011 "Composting" shall mean the controlled aerobic, thermophilic, microbial degradation of solid organic material such as raw or treated sewage sludge, animal manure, paunch manure, plant or food

residue or their mixtures, to a stabilized, humus-like material.

012 "Conditionally exempt small quantity generator" shall mean a generator who generates no more than 100 kilograms of hazardous waste in a month, and accumulates no more than a total of 1,000 kilograms of hazardous waste. If a conditionally exempt small quantity generator also generates acute hazardous waste, those hazardous wastes are subject to the exemptions and regulations of Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska.

013 "Construction" shall mean the erection or building of new structures or containment systems for solid waste management facilities, or the remodeling, alteration, modernization or extension of existing structures.

014 "Construction and demolition waste" shall mean waste which results from land clearing, the demolition of buildings, roads or other structures, including, but not limited to, beneficial fill materials, wood (including painted and treated wood), land clearing debris other than yard waste, wall coverings (including wall paper, paneling and tile), drywall, plaster, non-asbestos insulation, roofing shingles and other roof coverings, plumbing fixtures, glass, plastic, carpeting, electrical wiring, pipe and metals. Such waste shall also include the above listed types of waste that result from construction projects. Construction and demolition waste shall not include friable asbestos waste, special waste, liquid waste, hazardous waste and waste that contains polychlorinated biphenyl (PCB), putrescible waste, household waste, industrial solid waste, corrugated cardboard, appliances, tires, drums, and fuel tanks.

015 "Construction and demolition waste disposal area" shall mean any solid waste disposal area used for the sole purpose of disposal of construction and demolition waste.

016 "Containment system" shall mean the system of engineered and designed barriers surrounding the solid waste in a solid waste disposal area unit which is intended to encapsulate and contain the emplaced solid waste and any leachate.

017 "Council" shall mean the Environmental Quality Council.

018 "County" shall mean any county in the State of Nebraska.

019 "County solid waste jurisdictional area" shall mean all areas of a county not located within the corporate limits of a municipality except a facility which does not serve unincorporated areas of the county.

020 "Delisted Waste" shall mean hazardous waste which has been delisted pursuant to the procedures outlined in Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska.

021 "Delisted waste disposal area" shall mean any solid waste disposal area used for the sole purpose of disposal of delisted waste.

022 "Department" shall mean the Department of Environmental Quality.

023 "Director" shall mean the Director of the Department of Environmental Quality or the Director's designated representative.

024 "Discarded household appliances" shall mean clothes washers and dryers, water heaters, heat pumps, air conditioners, dehumidifiers, refrigerators, freezers, trash compactors, dishwashers, conventional ovens, ranges, stoves, and wood stoves.

025 "Disease vectors" shall mean any rodents, flies, mosquitoes, or other animals, including insects, capable of transmitting disease to humans.

026 "Disposal" shall mean the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste or hazardous waste into or on any land or water so that such waste or any constituent thereof may enter the environment or be emitted into the air, land or water of the state.

027 "Disposal fee" shall mean the quarterly disposal fee remitted to the Department based on the volume or weight of solid waste entering a municipal solid waste disposal area.

028 "Disposal fee rebate" shall mean a ten cents rebate of the quarterly disposal fee based on the volume or weight of solid waste entering a municipal solid waste disposal area.

029 "Existing solid waste disposal area" shall mean any solid waste disposal area that is receiving solid waste as of October 1, 1993.

030 "Floodplain" shall mean the lowland and relatively flat areas adjoining inland waters that are inundated by the 100-year flood.

031 "Fossil fuel combustion ash" shall mean flyash, bottom ash, slag, and flue gas emission control ash generated from utility plants or other facilities in which coal is the primary fuel source.

032 "Fossil fuel combustion ash disposal area" shall mean any area or site used for the sole disposal of fossil fuel combustion ash.

033 "Garbage" shall mean rejected food wastes, including waste accumulation of animal, fruit or vegetable matter used or intended for food or that attend the preparation, use, cooking, dealing in or storing of meat, fish, fowl, fruit or vegetable.

034 "Gas condensate" shall mean the liquid generated as a result of gas recovery process(es) at a solid waste disposal area.

035 "Ground water" shall mean water occurring beneath the surface of the ground that fills available openings in rock or soil materials such that they may be considered saturated.

036 "Hazardous waste" shall mean any waste designated or defined as a hazardous waste by N.A.C. Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska, which for purposes of general definition is a solid waste which, because of its quantity, concentration, or physical, chemical or infectious characteristics may:

036.01 Cause, or significantly contribute to, an increase in mortality or an increase in serious, irreversible, or incapacitating reversible, illness; or

036.02 Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

037 "Household waste" shall mean 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.

038 "Industrial solid waste" shall mean solid waste generated by manufacturing or industrial processes that is not a hazardous waste.

038.01 Such waste may include, but is not limited to, waste resulting from the following manufacturing processes: fertilizer and agricultural chemicals; food and related products and by-products; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing and foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay, and concrete products; textile manufacturing; transportation equipment; and water treatment.

038.02 This term does not include mining waste or oil and gas waste.

039 "Industrial waste disposal area" shall mean any solid waste disposal area used for the sole purpose of disposal of industrial waste.

040 "Infectious waste" shall mean a solid waste capable of causing an infectious disease. For a waste to be deemed infectious, consideration will be given to those elements required in order for infection to occur. These elements include the presence of a pathogen or causative organism, of significant virulence, in an adequate dose, which is able to gain a portal of entry in a susceptible host. Infectious waste shall include, but not be limited to, substances from the following classifications:

040.01 Blood, Blood Products and Body Fluids. This classification includes fluid blood, blood products and body fluids, and any items contaminated with any of these fluids, if a pourable quantity (ability of a liquid or semi-solid form to drip or flow) is present. The term blood and blood products includes serum, plasma, and other blood components. The term body fluid includes semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid and any other body fluid visibly contaminated with blood.

040.02 Infectious Sharps Waste. This classification includes all discarded items from diagnosis, treatment, or immunization which can potentially transmit disease by breaking the human skin, and includes hypodermic needles, scalpels, razor blades, breakable glass containers, blood vials, culture dishes, used slides, glass products and broken glass or other sharp items that have come into contact with or have been contaminated by material considered infectious.

040.03 Laboratory Waste. This classification includes all cultures and stocks of infectious agents, including specimen cultures from medical and pathological laboratories, cultures and

stocks from research and industrial laboratories, wastes from the production of biologicals, discarded live and attenuated vaccines, and culture dishes and devices used to transfer, inoculate, and mix cultures.

040.04 Contaminated Animal Waste. This classification includes blood and body fluids, carcasses, body parts, excrement and bedding from animals contaminated with agents that may cause human disease.

040.05 Waste Identified by Infectious Waste Generators. This classification includes those wastes determined by the infectious waste generator or the infectious waste generator's infectious control staff/committee to be treated as infectious waste because of the risk of disease posed by such waste.

041 "Injection well" shall mean a well into which fluids are injected.

042 "Integrated solid waste management" shall mean solid waste management which is focused on planned development of programs and facilities that reduce waste toxicity and volume, recycle marketable materials, and provide for safe disposal of residuals.

043 "Junk" shall mean materials which will not be utilized if not collected and processed for reuse or recycling, including but not limited to mean: old scrap; copper; brass; iron; steel; rope; wire; glass; rags; batteries; paper trash; rubber; debris; demolition waste; abandoned mobile homes, dismantled or wrecked; untaxed, untitled or unlicensed vehicles or parts thereof; and other old or scrap ferrous or nonferrous material.

044 "Land application unit" shall mean an area where wastes are applied onto or incorporated into the soil surface for agricultural purposes or for treatment and disposal.

045 "Land pollution" shall mean the presence upon or within the land resources of the state of one or more contaminants or combinations of contaminants, including, but not limited to, refuse, garbage, rubbish, or junk, in such quantities and of such quality as will or are likely to (a) create a nuisance, (b) be harmful, detrimental, or injurious to public health, safety, or welfare, (c) be injurious to plant and animal life and property, or (d) be detrimental to the economic and social development, the scenic beauty, or the enjoyment of the natural attractions of the state.

046 "Landfill unit" shall mean a discrete area of land which has been developed and constructed with containment features according to an operational plan and designed for disposal of solid waste.

047 "Lateral expansion" shall mean a discrete area of land which has not previously received solid waste, or any discrete area of land which has previously received solid waste and which has been closed, and is proposed for development as a landfill unit.

048 "Leachate" shall mean liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials removed from such waste.

049 "Lead-acid batteries" shall mean electrical storage batteries with cells that contain lead electrodes and an acidic electrolyte, such as those commonly used in motor vehicles.

050 "Liquid waste" shall mean any waste which contains free liquids which will readily separate from the solid portion of a waste under ambient temperature and pressure as determined by the federal Environmental Protection Agency Paint Filter Liquid Test Method 9095 of Test Methods for Evaluation Solid Waste Volume 1 section C November 1986.

051 "Livestock waste" shall mean animal excreta and associated feed losses, bedding, spillage or overflow from watering systems, wash and flushing waters, sprinkling waters from livestock cooling, precipitation polluted by falling on or flowing onto a livestock operation, and other material polluted by livestock, or their direct products.

052 "Lower explosive limit" shall mean the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at twenty-five (25) degrees centigrade and atmosphere pressure.

053 "Major modification" shall mean changes to any permitted facility which require Department review, approval, and public notice, and include, but are not limited to, changes in liners; leachate collection systems, ground water monitoring systems; final closure plans; operational plans; and other features which were of significant public concern during previous permitting processes. Any increase in design capacity of a solid waste disposal area will be subject to public notice requirements.

054 "Materials recovery facility" shall mean any facility at which solid waste is processed for the purpose of resource recovery.

055 "Monitoring" shall mean the combination of activities designed to assess the impact of the solid waste disposal area upon the environment.

056 "Municipality" shall mean a city of the metropolitan, primary, first or second class or village.

057 "Municipal solid waste" shall mean household waste and/or the combination of household waste with industrial or commercial solid wastes.

058 "Municipal Solid Waste Disposal Area" shall mean a publicly or privately owned discrete area of land or excavation that receives household waste, alone or in combination with other types of wastes such as commercial solid waste, industrial waste, nonhazardous sludge, or conditionally exempt small quantity generator waste, and which is not a land application unit, surface impoundment, injection well, or waste pile. For the purposes of these regulations, the term "landfill" may be used interchangeably with this term.

059 "Municipality solid waste jurisdictional area" shall mean all the incorporated areas of a city or of a village.

060 "Natural disaster" shall mean the occurrence of widespread or severe damage or loss of property resulting from any natural cause, including but not limited to, flood, earthquake, wind or storm.

061 "New solid waste disposal area" shall mean any solid waste disposal area or lateral expansion that has not received waste prior to October 1, 1993.

062 "One hundred-year flood" shall mean a flood that has a one percent (1%) or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long time.

063 "Open burning" shall mean the combustion of solid waste without:

063.01 Control of combustion air to maintain adequate temperature for efficient burning;

063.02 Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

063.03 Control of the emission of the combustion products.

064 "Open dump" shall mean a site for the disposal of solid waste which does not comply with the requirements of these regulations.

065 "Operational plan" shall mean that part of the application that describes the activities that are necessary for the routine and non-routine operations of the facility.

066 "Operating record" shall mean a record or file maintained by an owner or operator to contain documents and records pertaining to the solid waste management facility.

067 "Operator" shall mean the person(s) responsible for the overall operation of a facility or part of a facility.

068 "Owner" shall mean the person(s) who owns a facility or part of a facility.

069 "Person" shall mean any individual, partnership, association, public or private corporation, trustee, receiver, assignee, agent, municipality or other governmental subdivision, public agency, officer or governing or managing body of any municipality, governmental subdivision or public agency, or any other legal entity except the Environmental Quality Council and the Department of Environmental Quality.

070 "Plastic" shall mean any material made of polymeric organic compounds and additives that can be shaped by flow.

071 "Plastic bottle" shall mean a plastic container intended for a single use that has a neck smaller than the body of the container, is designed for a screw-top, snap cap, or other closure, and has a capacity of not less than sixteen fluid ounces or more than five gallons.

072 "Post-closure care" shall mean the continued observation, maintenance and monitoring, for a period of time, of a closed solid waste management facility in order to protect human health and the environment.

073 "Post-consumer material" shall mean those products or other materials generated by a business or consumer that have served their intended end uses, and that have been recovered from or otherwise diverted from the solid waste stream for the purpose of recycling. Post-consumer material does not

include manufacturing or converting scrap or by-products generated from, and commonly reused within, an original manufacturing process.

074 "Practicable waste management alternative" shall mean another solid waste disposal area, transfer station materials recovery facility, or other facility that may serve as a viable substitute for the solid waste management method(s) currently employed for solid waste management.

075 "Preferences" allows the purchaser to buy a recycled product even if it is more expensive than the lowest bid.

076 "Purchasing policy" shall mean a written document stating the intent of a municipality or county in its purchasing of products, materials, and supplies.

077 "Putrescible" shall mean capable of being decomposed by microorganisms with sufficient rapidity as to cause nuisances from odors, gases, etc. Kitchen wastes, offal, and dead animals are examples of putrescible components of solid waste.

078 "Recoverable" shall mean the capability and likelihood of being recovered from solid waste for commercial or industrial use.

079 "Recycled" shall mean the use of recovered waste materials, such as post-consumer material, in the manufacture or production of new items.

080 "Recycling" shall mean the process by which recovered waste materials are transformed into new products in such a manner that the original products may lose their identity.

081 "Recycling center" shall mean any facility which is maintained and operated for the purpose of receiving, collecting and processing source-separated recyclable materials for resale or transfer. For the purposes of this definition, "processing" shall mean the modification of materials by baling, crushing, grinding, chipping or other means to prepare the materials for markets.

082 "Recycling collection site" shall mean a premises which is maintained and operated for the purposes of receiving and collecting source separated recyclable materials, and shall not include on site activities for significantly processing or modifying the collected materials.

083 "Refuse" shall mean putrescible and non-putrescible solid wastes, except body wastes, and includes garbage, rubbish, ashes, incinerator ash, incinerator residue, street cleanings, industrial wastes, and other such wastes.

084 "Resource conservation" shall mean reduction of the amounts of solid wastes that are generated, reduction of overall resource consumption and utilization of recovered resources.

085 "Resource recovery" shall mean the recovery of material or energy from solid waste.

086 "Resource recovery system" shall mean a solid waste management system which provides for collection, separation, recycling, and recovery of solid wastes, including disposal of nonrecoverable

waste residues.

087 "Reuse" shall mean the reintroduction of a commodity into the economic stream without change.

088 "Rigid plastic container" shall mean any formed or molded container intended for a single use, composed predominately of plastic resin, that has a relatively inflexible finite shape or form with a capacity of not less than eight ounces or more than five gallons. Rigid plastic container shall not include a plastic bottle.

089 "Rubbish" shall mean non-putrescible solid wastes, excluding ashes, consisting of both combustible and noncombustible wastes, such as paper, cardboard, tin cans, yard clippings, wood, glass, bedding, crockery, or litter of any kind that will be a detriment to the public health and safety.

090 "Run-off" shall mean any precipitation, leachate, or other liquid that drains over land from any part of a facility.

091 "Run-on" shall mean any precipitation, leachate, or other liquid that drains over land onto any part of a facility.

092 "Salvage operation" shall mean the controlled and safe removal and collection of valuable or useful waste materials at any point in the solid waste stream.

093 "Saturated zone" shall mean that part of the earth's crust in which all voids are filled with water.

094 "Scavenging" shall mean the uncontrolled and unsafe removal of materials at any point in the solid waste stream.

095 "Set asides" mandates that a percentage of the total annual purchase of a product or material contain post-consumer material.

096 "Sludge" shall mean any solid, semisolid or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

097 "Solid waste" shall mean any garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and mining operations, and from community activities, but solid waste shall not include solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the federal Clean Water Act, as amended, 33 U.S.C. 1251 et seq., or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 68 Stat. 923.

098 "Solid waste compost site" shall mean a tract of land, location, area or premises used for composting solid waste.

099 "Solid waste disposal" shall mean the disposal of solid waste, including any household waste, commercial solid waste, fossil fuel combustion ash, nonhazardous sludge, industrial solid waste, or construction and demolition waste.

100 "Solid waste disposal area" shall mean a discrete area of land or excavation which receives solid waste and includes all contiguous land and structures, other appurtenances and improvements on the land used for the disposal of solid wastes or improvements necessary to carry out the disposal of solid wastes. Solid waste disposal areas shall include, but not be limited to the following disposal areas: municipal solid waste disposal area, construction and demolition disposal areas, fossil fuel combustion ash disposal area, industrial disposal areas, delisted hazardous waste disposal areas and land application units for repeated disposal or treatment of special wastes.

101 "Solid waste management" shall mean the systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, and disposal of solid waste.

102 "Solid waste management facility" shall mean a public or private site, location, tract of land, installation or building which has been used for the collection, source separation, storage, transportation, transfer, processing, treatment, or disposal of solid waste, and shall include solid waste disposal areas and solid waste processing facilities.

103 "Solid waste management plan" shall mean a plan adopted by a county or municipality, including a joint plan adopted by an agency, for integrated solid waste management.

104 "Solid waste processing" shall mean the process by which solid wastes are physically or chemically changed, temporarily stored, or salvaged prior to being transferred to a solid waste disposal area or to a secondary materials recovery facility.

105 "Solid waste processing facilities" mean any facility where solid wastes are processed, and shall include, but not be limited to solid waste compost sites, materials recovery facilities, recycling centers and solid waste transfer stations.

106 "Solid waste transfer station" shall mean any site, location, tract of land, installation, or building that is used or intended to be used primarily for the purpose of transferring solid wastes that are generated off of the premises of the facility from vehicles or containers, into other vehicles or containers for transportation to a solid waste disposal area or solid waste processing facility.

107 "Source separated materials" shall mean the waste products, for which a market exists, that have not been commingled with solid waste but have been kept separate from other wastes from the point of generation to final disposition.

108 "Special waste" shall mean a solid waste, except waste which is regulated as a hazardous waste, which possesses physical, chemical, or biological characteristics that make it different from general municipal solid waste, or construction and demolition waste, and which requires special handling, treatment, or disposal methodologies in order to protect public health, safety, and the environment.

109 "Storage" shall mean the containment of solid waste on a temporary basis in such a manner as not to constitute disposal of such waste.

110 "Surface impoundment" shall mean a facility or part of a facility that is a natural topographic depression, human-made excavation, or diked area formed primarily of earthen materials, or lined with synthetic materials, that is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

111 "Transfer" shall mean the act of transporting the solid waste from the point of storage to a processing facility and/or final disposal site.

112 "TSCA regulated PCB waste" shall mean polychlorinated biphenyl (PCB) wastes in concentrations greater than or equal to 50 ppm as regulated by Toxic Substances Control Act (TSCA). PCB wastes less than 50 ppm are not regulated by TSCA and shall be considered special wastes.

113 "Unregulated hazardous wastes" shall mean a hazardous waste generated by a conditionally exempt small quantity generator, which contains free liquids, or is in solid form in a quantity greater in size or volume than 5 gallons or in a quantity greater in weight than 19.5 kilograms (43 pounds), provided, however, that these quantity limits are daily maximum values. For purposes of this definition, unregulated hazardous wastes, except household hazardous waste, shall be prohibited from land disposal on and after September 1, 1996. This provision does not apply to household hazardous waste.

114 "Uppermost aquifer" shall mean 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 facility's property boundary.

115 "Waste management unit boundary" means a vertical surface located at the hydraulically downgradient limit of the landfill unit. This vertical surface extends down into the uppermost aquifer.

116 "Waste oil" shall mean any oil that has been refined from crude oil, used, and as a result of such use, is contaminated by physical or chemical impurities, or used oil as defined in Title 128 - Rules and Regulations Governing Hazardous Waste Management in Nebraska.

117 "Waters of the state" shall mean all waters within the jurisdiction of this state, including streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

118 "Water table" shall mean the surface of underground gravity-controlled water.

119 "Waste pile" shall mean any non-containerized accumulation of solid, non-flowing waste that is used for treatment or storage.

120 "Wetlands" shall mean those areas that are inundated or saturated by surface or ground water at a

frequency and duration to support, and that under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

121 "Yard waste" shall mean grass and leaves. For the purposes of composting, yard waste shall mean grass and leaves in combination with chipped trees and branches and other organic material collected as the result of the care of ornamental plants, lawns, shrubbery, vines and gardens.

Legal Citation: Title 132, Ch. 1, Nebraska Department of Environmental Quality

## **Chapter 2 - PERMITS: APPLICATION PROCEDURES: HEARINGS REQUIRED**

001 Permit Required. No person shall construct or operate a solid waste management facility without a permit issued by the Department pursuant to this chapter unless otherwise provided in these regulations. Any person who is required to have a permit, including new applicants and permittees with expiring permits, shall complete, sign and submit an application to the Department as described in these regulations.

001.01 When a facility is owned by one person but is operated by another person, the owner and operator shall sign the permit application and the permit will be issued to all signatories to the application.

002 Exceptions.

002.01 Activities specified in this section shall be exempt from the permit requirements of this chapter, provided that the materials used in these activities are not contaminated with other wastes and that the manner of handling or disposal does not threaten human health or the environment. Activities exempt from the permit requirements that use sewage sludge in their processes shall not violate any requirements of applicable regulations promulgated pursuant to Section 405(d) of the Clean Water Act, as amended (33 U.S.C. 1251 et seq).

002.01A The use of uncontaminated sand, gravel, stone, soil, rock, brick, concrete rubble, asphalt rubble, or similar material, or some combination thereof, for the purpose of erosion control, erosion repair, channel stabilization, landscaping, road bed preparation or other land improvement;

002.01B The placement of tires, posts, or ferrous objects for bank or blowout stabilization. Any bank stabilization must be done in accordance with Title 117 - Nebraska Surface Water Quality Standards and the Federal Clean Water Act (33 U.S.C. 1251 et seq);

002.01C The disposal or use of trees and brush, or the remaining material resulting from fires set for the purpose of destroying trees and brush;

002.01D The deposit of solid waste generated by an individual is disposed of on such individual's property if such property is outside the corporate limits of a municipality and the department determines that the county has not provided integrated solid waste management facilities for its residents;

002.01E The deposition of on-farm building demolition waste generated by an individual and disposed on location if such location is agricultural in nature;

002.01F Composting of only livestock wastes generated at their livestock operation and only when the operation is in compliance with Title 130 - Rules and Regulations Pertaining to Livestock Waste Control;

002.01G Solid waste compost sites which receive only yard wastes in quantities less than 20,000 cubic yards as received per year;

002.01H Solid waste compost sites which receive less than 20,000 cubic yards per year of material that consists of yard waste in combination with less than 1000 cubic yards of other materials;

002.01I Recycling centers or collection sites;

002.01J Upon the permission of the director, the deposit of building demolition material resulting from the clean up from a natural disaster;

002.01K The use of source separated material in the manufacturing of other products;

002.01L Salvage operations which store, sort and sell metals and machinery suitable for reprocessing; or

002.01M Land application of sludge from a waste water treatment plant where such activity is done in accordance with Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

### 003 Partial exception facilities.

003.01 Owners or operators of solid waste processing facilities as specified in 003.01A to 003.01E will be exempt from the permit requirements, but will be required to operate in accordance with section 003.02. Solid waste processing facilities that use sewage sludge in their processes shall not violate any requirements of applicable regulations promulgated pursuant to Section 405(d) of the Clean Water Act, as amended (33 U.S.C. 1251 et seq).

003.01A Solid waste compost sites that receive between 20,000 and 100,000 cubic yards per year of yard wastes only;

003.01B Solid waste compost sites that receive less than 1000 cubic yards per year of material;

003.01C Solid waste compost sites which receive between 1000 and 20,000 cubic yards per year of livestock waste other than that generated by the property owner;

003.01D Solid waste compost sites which receive between 20,000 and 100,000 cubic yards per year of material that consists of yard waste in combination with less than 1000 cubic yards of other materials; or

003.01E A solid waste transfer station receiving waste from vehicles other than those vehicles designed to compact solid waste.

003.02 Operations of all partial exception solid waste processing facilities listed in 003.01 shall be in accordance with the following criteria.

003.02A A solid waste processing facility shall be designed and operated at all times so as to not constitute a hazard, or a threat to human health or the environment.

003.02B The operation of any facility shall include effective litter control and disease vector control programs.

003.02C An owner or operator of any solid waste processing facility shall ensure that the unit does not violate any applicable requirements developed under Title 129 - Nebraska Air Quality Regulations.

003.02D Surface Water Requirements. A solid waste processing facility shall not:

003.02D1 Cause a discharge of pollutants into waters of the state, including wetlands, that violate any requirements of Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

003.02D2 Cause the discharge of a non-point source of pollution to waters of the State that violate any requirement of an area-wide or state-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended (33 U.S.C. 1251 et seq).

003.02E An owner or operator shall not accept solid waste at the facility if the storage capacity has been reached. Solid waste shall only be stored in areas designated for storage.

004 Permit Procedures: Existing Solid Waste Management Facilities. The holder of a permit shall file for renewal as described in Section 012. Owners or operators of existing facilities which are not currently permitted, shall submit an application to the department within one-hundred and eighty (180) days of May 31, 1993.

005 Local permit requirements. Local governing bodies may develop and enforce local ordinances, codes or rules and regulations on solid wastes disposal or processing equal to or more stringent than these rules and regulations. Nothing herein shall relieve the applicant from complying with any other applicable law, ordinance, code, or rule.

006 Permit Procedure: Solid Waste Management Facility. A person desiring a permit to operate a facility shall apply to the Department. The application shall be made part of the operating record. In the case of a solid waste disposal area, the required facility specifications shall be prepared by a professional engineer registered to practice in the State of Nebraska. Only those portions of the application for a construction and demolition waste disposal area which are specified in Chapter 5 shall be prepared by a professional engineer registered to practice in the State of Nebraska.

006.01 Contents of Application. All applicants for permits shall provide information set forth in these regulations, where applicable, and any additional information requested by the Department. Each application shall contain a certification that any information submitted is true, accurate, and complete. Each application shall include the following information at a minimum and shall include the non-refundable fee required by Chapter 9:

006.01A The activity or operation proposed by the applicant which requires a permit and a brief description of the nature of the applicant's business;

006.01B The owner and operator's name(s), address(es), telephone number(s), ownership status, and status as a federal, state, private, public, or other entity;

006.01C The legal description of the facility, and in the case of a solid waste disposal area, the legal description of the site boundaries;

006.01D The signatures required by 006.03 of this chapter;

006.01E Supporting documentation to the effect that a solid waste management facility is in compliance with the locational, construction/design, groundwater monitoring, and financial assurance requirements of these regulations;

006.01F An operational plan, and closure and post-closure plans prepared pursuant to these regulations;

006.01G Information demonstrating that the facility or operation will comply with all applicable requirements as well as ensure protection of public health and the environment; and

006.01H Evidence of notification or local approval required by Neb. Rev. Stat. §13-1701 to §13-1714 or Neb. Rev.Stat. §13-2035, whichever is applicable.

006.02 The contents of the application for all solid waste management facilities not listed in 002 or 003 of this chapter shall, upon permit issuance, become a condition of such permit.

006.03 Signatures: Applications. All permit applications and any supplemental application material submitted to the Department, as required by Section 001, shall be signed:

006.03A In the case of a corporation, by a principal executive officer of at least the level of vice-president;

006.03B In the case of a partnership or sole proprietorship, by a general partner or the sole proprietor, respectively; and

006.03C In the case of a municipal, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

006.03D Any reports or correspondence relating to a permit may be signed by a duly authorized representative of the persons described in 006.03A to 006.03C of this chapter if: such representative is responsible for the overall operation of the activity or operation; the authorization is made in writing by the person designated in paragraphs 006.03A to 006.03C of this chapter; and the written authorization is submitted to the Department.

006.03D1 Any change in an authorization meeting the requirements of 006.03D of this chapter shall be submitted to the Department in writing prior to or together with any report to be signed by an authorized representative.

006.04 Additional Information Requests. Once an application has been received, the Department shall determine whether the application is administratively complete. The Department shall not issue a permit before receiving a complete application, except for emergency permits.

006.04A If the application is not administratively complete, the Department shall notify the applicant of the information necessary to complete the application and retain the application submitted pending receipt of such additional information.

006.04A1 If such additional information is not received within one-hundred and eighty (180) days of the date of the Department notification, the application will be considered abandoned, and will not be reviewed further by the Department.

006.04B The sixty day review period requirement of §13-2036 shall not commence until all the necessary information has been received by the Department and the application is determined to be administratively complete.

006.04C An applicant shall not commence construction of a facility until the Department provides written notification that all requirements have been satisfied and further notifying such applicant that he or she may commence construction.

007 General Conditions. The Department shall impose such conditions in a permit as may be necessary to accomplish the purposes of applicable laws and these regulations, and as may be necessary to ensure compliance with applicable laws, regulations, and standards. The following conditions apply to all permits.

007.01 A permit shall expire at the end of five (5) years, and may be renewed according to the provisions of 012 of this chapter.

007.02 A permittee shall meet any compliance schedule imposed under its permit and shall fulfill all reporting requirements of the permit.

007.03 The permittee shall maintain an operating record near the facility or in an alternate location approved by the Department. The operating record shall include all information required by these regulations.

007.04 The permittee shall notify the Department when the records described in 007.03 have been placed in or added to the operating record.

007.04A This notification shall be received by the Department within one hundred twenty (120) days of the addition of the record to the operating record, unless an alternative time is allowed in these regulations.

007.04B For purposes of gas monitoring, required by Chapter 3, and ground water monitoring, required by Chapter 7, such notification shall be received by the Department within thirty (30) days of the end of each calendar quarter, along with copies of all required monitoring results.

007.04C The permittee shall furnish to the Department any information contained in the operating record upon request, or make the operating record available to the Department for inspection at all reasonable times.

007.05 A permittee shall retain all operating records for the facility until the end of the post-closure care period.

007.06 A permittee shall allow full access to existing and available facility records, and shall allow Department inspectors entry and access, during reasonable hours, to any building, area,

or place, for inspection purposes (except a building designed for and used exclusively as a private residence).

007.07 A permittee shall commence construction within eighteen (18) months after issuance of Departmental approval for commencement of construction.

008 Transferability of Permit. Permits, except solid waste compost site permits, may be transferred only upon the Director's approval.

009 Issuance or Denial of a Permit.

009.01 Once an application is determined to be administratively complete and has been reviewed by the Department, the Director shall make a preliminary decision whether to issue or deny the permit. Such preliminary decision shall be publicly noticed as outlined in Section 011.

009.02 The Director shall not issue a permit unless the applicant submits adequate proof that the facility will be developed, constructed, modified or operated so as to ensure compliance with all applicable laws, regulations, and standards, and so as to be protective of human health and the environment. The Director may deny a permit on any of the following grounds including, but not limited to:

009.02A The application does not meet the appropriate design criteria specified in these regulations;

009.02B Upon a request for renewal or transfer, the permittee has not complied with all terms, conditions, requirements, and schedules of compliance of the existing permit; or

009.02C In the case of a solid waste disposal area, such a facility is within three thousand three hundred (3300) feet of a residential area in a metropolitan class city.

009.02C1 For purposes of this section, "residential area" shall mean an area designated as residential under the zoning authority of the city.

009.03 If the Director determines to deny the permit and the applicant wishes to contest the decision, the procedures of Title 115 and the Administrative Procedures Act shall be followed.

009.04 An applicant shall not commence construction until written permission to construct has been received from the Department after all necessary application review and public notice and participation has been completed. The permit will be issued after construction of the facility is complete and the applicant supplies documentation verifying that the facility was constructed in accordance with the application. In the case of solid waste disposal areas, this documentation shall be signed by a professional engineer registered in the State of Nebraska.

010 Modifying, Suspending, Revoking Permits.

010.01 Any permit issued by the Department, may be modified, suspended, or revoked, in whole or in part during its term for cause including, but not limited to:

010.01A A violation of any terms or conditions of the permit;

010.01B Obtaining a permit by misrepresentation of any relevant facts or failure to disclose fully all relevant facts;

010.01C Information indicating that the activity or operation poses a threat to human health and the environment; or

010.01D Upon request by the permittee, provided such request does not create a violation of any existing applicable requirements, standards, laws, or rules and regulations. Requests for modifications shall be reviewed according to the standards of Section 009.

010.01E A violation of these rules and regulations or the Environmental Protection Act or the Integrated Solid Waste Management Act.

010.02 Permits which are modified, suspended, or revoked are subject to the public participation procedures of Section 011.

010.03 In addition to the reasons specified in 010.01 of this chapter, causes for modification, but not revocation, shall include, but not be limited to:

010.03A Any major modification;

010.03B Information received by the Director which was not available at the time the permit was issued, and which would have justified the application of different permit conditions at the time of issuance;

010.03C A change in the standards or regulations on which the permit was based; or

010.03D A determination made by the Director that good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, materials shortage, or other event over which the permittee has little or no control and for which there is no reasonable available remedy.

010.04 Permit modifications shall not require public notice and opportunity for hearing when the modification consists of:

010.04A Correcting typographical errors;

010.04B Requiring more frequent monitoring or reporting by the permittee;

010.04C Changing an interim compliance date, but not beyond one hundred twenty (120) days and not where the change would interfere with the attainment of a final compliance date; or

010.04D Alterations or additions to the permitted activity or operation which do not materially or substantively change the conditions under which the existing permit was issued.

010.05 Permit modifications shall not be used to extend the term of a permit.

## 011 Public Notice of Pending Permit Action

011.01 Public notice of every preliminary determination to issue, deny, transfer, modify, suspend, or revoke a permit shall contain the elements of 011.02 and shall be made by:

011.01A Submitting the notice as a news release and as a legal notice to the newspaper in the geographical area of the proposed activity or operation; and

011.01B Mailing the notice to the applicant, or permittee as applicable, any unit of local government having jurisdiction over the area where the activity or operation is

proposed to be located, each state agency having any authority under state law with respect to the construction or operation of such activity and to any person, either upon request or whose names are on a Departmental mailing list to receive such public notices.

011.01C The legal notice, draft permit and administrative record shall be placed in a public repository in the affected geographical area to be served.

011.02 All public notices issued under these rules and regulations shall contain:

011.02A Name, address, and telephone number of the Department;

011.02B Name and address of the applicant;

011.02C A brief description of the applicant's proposed activities or operations;

011.02D A brief description of the procedures for final determinations, and means by which interested person or groups can participate in the process; or if applicable, a notice of the decision; and

011.02E The address and telephone number of the premises where interested persons may obtain further information.

011.03 Any person will have thirty (30) days from the date of the publication of the legal notice to:

011.03A Provide the Director with any written comments concerning the proposed facility for which the legal notice has been issued; or

011.03B Request a public hearing pursuant to Title 115.

011.04 After the public comment period and any public hearing, the Director shall publish notice of his or her decision. The applicant and other interested persons shall be notified of this decision.

011.05 Any aggrieved person wishing to contest the Director's decision may file a petition for a contested case within thirty (30) days of the Director's decision in accordance with the provisions of Title 115 of the Nebraska Administrative Code.

011.06 Any petition filed pursuant to 011.05 shall not act as a stay of permit.

## 012 Filing for Renewal: Expiring Permit.

012.01 Permits shall expire five (5) years following the date of the issuance, but may be renewed if the permittee has complied with all applicable requirements.

012.02 Forms for renewals of permits shall be available from the Department. Permit renewal requests shall be filed with the Department one hundred eighty (180) days prior to the permit expiration date and shall be reviewed according to procedures and standards of Section 009.

012.03 Prior to renewal, the permittee shall be in compliance with or have complied with all the terms, conditions, requirements, and schedules of compliance of the expiring permit.

012.04 Public notice and public participation procedures for renewal of the permit shall be those procedures specified for permits in Section 011 of this chapter.

## 013 Emergency Permit. In the event the Director finds an imminent and substantial endangerment to

human health and the environment, the Director may issue a temporary emergency permit without notice and hearing. This emergency permit may also be issued to a non-permitted activity or operation or to one whose existing permit does not cover the authority for which the emergency permit is made. This emergency permit:

013.01 May be oral or written. If oral, it shall be followed within five (5) days by a written emergency permit;

013.02 Shall not last more than one hundred twenty (120) days but may be renewed for an additional sixty (60) days where the permittee can demonstrate that the circumstances justify such extension and that the permittee made good faith efforts to complete the permitted activity or operation within the one hundred twenty (120) days;

013.03 Shall clearly specify the wastes to be handled and the manner and location of their disposal; and

013.04 May be terminated by the Director at any time without process if the Director determines that termination is appropriate to protect human health and the environment.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2036; 13-2041; 81-1504; 81-1505; 81-1507

Legal Citation: Title 132, Ch. 2, Nebraska Department of Environmental Quality

### **Chapter 3 - CRITERIA FOR MUNICIPAL SOLID WASTE DISPOSAL AREAS, DELISTED WASTE DISPOSAL AREAS, INDUSTRIAL WASTE DISPOSAL AREAS and LAND APPLICATION UNITS FOR REPEATED DISPOSAL OR TREATMENT OF SPECIAL WASTES**

001 Applicability. The requirements of this chapter apply to all municipal solid waste disposal areas, delisted waste disposal areas, industrial waste disposal areas, and land application units for repeated disposal or treatment of special wastes required to obtain a permit pursuant to Chapter 2, 001.

001.01 In addition to the other requirements of these regulations for delisted waste disposal areas, the Department may place such conditions and restrictions upon a permit issued or renewed under these regulations as deemed necessary to protect public health or the environment.

002 Locational Criteria. New solid waste disposal areas and lateral expansions of existing solid waste disposal areas listed in 001 shall be located in accordance with the standards as described in this section. The application shall include documentation verifying that the solid waste disposal area complies with the following criteria.

002.01 A solid waste disposal area shall not be located in an area where the Department finds that the solid waste activities will have a detrimental effect on the waters of the state based on the following criteria:

002.01A Current and projected use of water resources in the potential zone of influence of the site;

002.01B Ground water elevation and proposed separation between the lowest point of the lowest cell and the predicted maximum water table elevation; areas having high ground water tables may be restricted to landfill operations which will maintain a safe vertical distance between deposited refuse and the maximum water table elevation;

002.01C Potential interrelationship of the local aquifers, and surface waters based on historical records or other sources of information; and

002.01D Background and initial quality of water resources in the potential zone of influence of the site.

002.02 The application shall include a description of the:

002.02A Soil and bedrock to a depth adequate to allow evaluation of the water quality protection provided by the soil and bedrock;

002.02B Potential for leachate generation, and of pollution of the waters of the state;

002.02C Ground water condition, including ground water flow below and adjacent to the proposed facility, with an appraisal of the effect of the facility on ground water and surface waters;

002.02D Name of and distance to nearby surface waters; and

002.02E Land use and population density of the proposed facility and of the area surrounding the facility within one mile of the facility boundaries.

002.03 No person shall locate a solid waste disposal area within one thousand (1,000) feet from the nearest edge of an existing right-of-way of any state, interstate or federal highway unless the active area is screened by natural objects, plantings, fences, or other appropriate means so as to not be visible from such highway.

002.04 Airport Proximity.

002.04A The owner or operator of a new or existing solid waste disposal area shall demonstrate that the solid waste disposal area does not pose a bird hazard to aircraft and include the demonstration in the operating record if the solid waste disposal area is located within:

002.04A1 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft; or

002.04A2 5,000 feet (1524 meters) of any airport runway end used by only piston-type aircraft.

002.04B An owner or operator who proposes to site a new solid waste disposal area or a lateral expansion of an existing solid waste disposal area within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft shall notify the affected airport and the Federal Aviation Administration and include documentation of the notification in the operating record.

002.04C An owner or operator of an industrial waste disposal area shall be exempt from the provisions of 002.04A and 002.04B of this section.

002.04D For purposes of this section:

002.04D1 "Airport" shall mean a public-use airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

002.04D2 "Bird hazard" shall mean an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

002.05 Floodplains.

002.05A A new land application unit for repeated disposal or treatment of special wastes, municipal solid waste disposal area, or delisted waste disposal area, or a lateral or vertical expansion of these facilities, shall not be located in a 100-year flood plain.

002.05B An owner or operator of an industrial waste disposal area shall be exempt from section 002.05A upon demonstration by the owner or operator that the disposal area will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

002.06 Wetlands. A new solid waste disposal area or lateral expansion shall not be located in wetlands.

002.07 Unstable areas. An owner or operator of a new solid waste disposal area, existing solid waste disposal area, or lateral expansion located in an unstable area shall demonstrate in the operating record and notify the Department of the demonstration in the operating record that engineering measures have been incorporated into the facility's design to ensure that the integrity of the containment systems of a solid waste disposal area will not be disrupted.

002.07A An owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

002.07A1 On-site or local soil conditions that may result in significant differential settling;

002.07A2 On-site or local geologic or geomorphologic features; and

002.07A3 On-site or local human-made features or events, both surface and subsurface.

002.07A4 For purposes of this section,

002.07A4(a) "Unstable area" shall mean a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the facility structural components responsible for preventing releases from the facility. This term may include poor foundations conditions, areas susceptible to mass movements, and Karst terranes.

002.07A4(b) "Poor foundation conditions" shall mean those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of a solid waste management facility.

002.07A4(c) "Areas susceptible to mass movements" shall mean those areas of influence (i.e., areas characterized as having an active or

substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the solid waste disposal area, because of natural or human-induced events, results in the down slope transport of soil and rock material by means of gravitational influence.

002.07A4(c)(1) Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluction, block sliding, and rock fall.

002.07A4(d) "Karst terranes" shall mean areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

002.08 Fault area criteria for municipal solid waste disposal areas.

002.08A A new municipal solid waste disposal area or lateral expansion thereof, shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time unless the owner or operator demonstrates to the Department that an alternative setback distance of less than 200 feet will:

002.08A1 Prevent damage to the structural integrity of the solid waste disposal area; and

002.08A2 Be protective of human health and the environment.

002.08B For purposes of this section:

002.08B1 "Fault" shall mean 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;

002.08B2 "Displacement" shall mean the relative movement of any two sides of a fault measured in any direction; and

002.08B3 "Holocene" shall mean the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

002.09 Seismic impact zone criteria for municipal solid waste disposal areas.

002.09A An owner or operator shall not locate a new municipal solid waste disposal area or lateral expansion thereof, in a seismic impact zone unless the owner or operator demonstrates in the operating record and notifies the Department of the demonstration in the operating record that:

002.09A1 All containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.

002.09B For purposes of this section:

002.09B1 "Seismic impact zone" shall mean 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 will exceed 0.10g in 250 years.

002.09B2 "Maximum horizontal acceleration in lithified earth material" shall mean the maximum horizontal acceleration depicted on a seismic hazard map, with a ninety percent (90%) or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment.

002.09B3 "Lithified earth material" shall mean 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.

002.09B3(a) This term does not include human-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

002.10 Closure of existing municipal solid waste disposal areas.

002.10A Owners and operators of municipal solid waste disposal areas which do not meet locational criteria of this chapter shall close the solid waste disposal area by October 1, 1993.

002.10A1 Closure of the solid waste disposal area and post-closure activities, as required by section 002.10A, shall be in accordance with section 005 and 006 of this chapter.

002.10B The deadline for closure required by 002.10A of this section may be extended for up to two (2) years if the owner or operator demonstrates to the Department that:

002.10B1 There is no available alternative disposal capacity; and

002.10B2 There is no immediate threat to human health or the environment.

003 Design Criteria. The construction and design of all solid waste disposal areas shall:

003.01 Be protective of human health and the environment;

003.02 Not result in pollution of the waters of the state; and

003.03 In the case of a new solid waste disposal area or a lateral expansion of an existing solid waste disposal area, that has not received waste prior to October 1, 1993, the construction and design plans shall include the following:

003.03A A description of the sequence of earth materials at the proposed facility to a depth sufficient to assure the reliability of the facility design;

003.03B A schedule of construction and a construction quality assurance plan as described in 003.04C;

003.03C Data obtained from soil samples taken from the proposed facility site which describe the soil classification, grain size distribution, permeability, compatibility, and ion-exchange properties of the subsurface materials for those strata which are essential to the design of the facility; and

003.03D If exploration holes are drilled to obtain data, information showing the manner of plugging and sealing such holes.

003.04 The construction and design plans for a new or a lateral expansion of an existing solid waste disposal area shall also include the following documentation. Land application units for repeated disposal or treatment of special wastes shall be exempt from the following requirements of this section.

003.04A A liner designed and constructed according to one of the following designs:

003.04A1 With a composite liner consisting of two components: the upper component must consist of a minimum 30-mil flexible membrane liner (FML); and the lower component must consist of at least a two (2) foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil. thick. The FML must be installed in direct and uniform contact with the compacted soil component; or

003.04A2 In accordance with a design approved by the Department, alternate designs shall ensure that the concentration values listed in Appendix III will not be exceeded in the uppermost aquifer at the relevant point of compliance, as specified by the Department under 003.04D of this chapter. The Department shall consider the following factors when approving the design of liner systems:

003.04A2(a) The hydrogeologic characteristics of the facility and the surrounding land;

003.04A2(b) The climatic characteristics of the area;

003.04A2(c) The volume and type of waste to be deposited; and

003.04A2(d) The volume and physical and chemical characteristics of the leachate.

003.04A3 All required compacted soil components shall be constructed in lifts which do not exceed six (6) inches in thickness.

003.04A3(a) Uniform compaction of the lifts shall be assured through the use of appropriate equipment. Liners shall be supported by material of sufficient bearing strength to prevent subsidence and failure of any component. The bearing strength shall be documented through materials testing.

003.04B A leachate collection and treatment system shall be constructed where necessary to protect the waters of the state. Any required discharge permit shall be obtained from the Department. The leachate collection system shall be maintained as required by section 006.

003.04B1 Leachate collection systems shall be designed and constructed to maintain less than a 30-cm. depth of leachate over the liner.

003.04C A construction quality assurance plan for engineered containment systems and leachate collection systems shall be submitted with the application. The plan shall assure adequate construction and testing of the containment system components as called for in design specifications in the facility plan. The construction quality

assurance plan shall be prepared and signed by a professional engineer registered in the State of Nebraska.

003.04D The relevant point of compliance noted in 003.04A2 of this chapter shall be located at the waste management unit boundary. The applicant may request the establishment of an alternate relevant point of compliance. The alternate relevant point of compliance shall be no more than 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the solid waste disposal area. The Department will base the decision to approve or deny the applicant's request upon consideration of the following factors:

003.04D1 The hydrogeologic characteristics of the facility and the surrounding land;

003.04D2 The volume and physical and chemical characteristics of the leachate;

003.04D3 The quantity, quality and direction of flow of ground water;

003.04D4 The proximity and withdrawal rate of the ground water users;

003.04D5 The availability of alternative drinking supplies;

003.04D6 Method of operation as outlined in the operational plan;

003.04D7 The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water, and whether the ground water is currently used or reasonably expected to be used for drinking water;

003.04D8 Public health, safety, and welfare effects; and

003.04D9 Practicable capability of the owner or operator.

003.04E Solid waste disposal area run-on/run-off control systems shall be designed, constructed and maintained to meet the following criteria:

003.04E1 A run-on control system to prevent flow onto the active portion of the landfill during the peak discharge from a twenty-five (25) year storm; and

003.04E2 A run-off control system from the active portion of the landfill to collect and control, at least, the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm.

003.04E3 Surface water courses and run-off shall be diverted from the solid waste disposal area by devices such as trenches, conduits and proper grading to minimize infiltration and erosion of cover material. The solid waste disposal area shall be constructed and graded so as to promote rapid surface water run-off without excessive erosion.

003.04E4 Run-off from the active portion of the solid waste disposal area shall be handled in accordance with 004.08.

003.04E5 Regrading shall be done as required during construction and after completion to avoid ponding of precipitation and to maintain cover material integrity. On-site drainage structures and channels shall be designed for at least a twenty-four (24) hour, twenty-five (25) year storm.

003.04F Plans for the construction of a municipal solid waste disposal area shall include the location and design of the gas control and monitoring system and include vents, barriers, or other control measures.

003.05 In the case of a land application unit for repeated disposal or treatment of special waste, the construction and design plans, in addition to section 003.01 to 003.03, shall include the following:

003.05A Measures taken to protect the ground water;

003.05B A description of the system for collection, containment, treatment and/or use of all waters within the site confines, which shall include:

003.05B1 A monitoring program for surface run-off from the site shall be developed and implemented to determine the need and extent of containment facilities; or

003.05B2 A containment facility shall be designed to contain all site run-off from a twenty-four (24) hour twenty-five (25) year storm.

003.06 Small landfill partial exemption. Owners and operators of new municipal solid waste disposal areas, existing municipal solid waste disposal areas and lateral expansions at which less than twenty (20) tons of municipal solid waste is disposed of daily, based on an annual average, may be exempt from Section 003.04A, so long as there is no evidence of existing ground water contamination from the solid waste disposal area, and the solid waste disposal area serves:

003.06A A community that has no practicable waste management alternative and the municipal solid waste disposal area is located in an area that annually receives less than or equal to 25 inches of precipitation.

003.06A1 Owners and operators of new municipal solid waste disposal areas, existing solid waste disposal areas, and lateral expansions that meet the criteria of Sections 003.06 and 003.06A shall demonstrate compliance with each criteria by placing documentation in the operating record, and providing copies of such documentation to the Director.

003.06B If, at any time, owners and operators who have asserted the exemption of Section 003.06, have knowledge of ground water contamination resulting from such new municipal solid waste disposal area, existing solid waste disposal area or lateral expansion, such owner or operator shall notify the Director of such contamination, in writing, and thereafter shall comply with all of section 003 of these regulations for all areas previously exempt.

004 Operational Criteria. Operations of all solid waste disposal areas shall be in accordance with the approved operational plan and Chapter 2 requirements.

004.01 A solid waste disposal area shall be designed and operated at all times so as to not constitute a hazard, or a threat to human health or the environment.

004.02 The operation of a solid waste disposal area shall include effective noise control and odor control programs.

004.03 Litter shall be controlled at solid waste disposal areas.

004.04 Disease vector control. An owner or operator of a solid waste disposal area shall prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and the environment.

004.05 Air Criteria. An owner or operator of a solid waste disposal area shall ensure that the unit does not violate any applicable requirements developed under Title 129 - Nebraska Air Quality Regulations.

004.06 Procedures for Excluding the Receipt of Hazardous Waste or TSCA Regulated PCB Wastes. Owners or operators of solid waste disposal areas shall implement a program for detecting and preventing the acceptance or disposal of regulated hazardous wastes and TSCA regulated polychlorinated biphenyl (PCB) wastes. This program shall include, at a minimum:

004.06A Random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;

004.06B Records of any inspections;

004.06C Training of facility personnel to recognize regulated hazardous wastes and PCB wastes; and

004.06D Notification to the Department if a regulated hazardous waste or PCB waste is discovered at the facility.

004.06E Any hazardous or PCB waste identified must be removed and handled in accordance with procedures of the approved operating plan.

004.07 Access Requirements.

004.07A An owner or operator of a solid waste disposal area shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate, to protect human health and the environment.

004.07B Access roads to the site shall be maintained so as to be negotiable by vehicles.

004.07C Necessary measures shall be taken (supervision, placarding, fencing) to reduce trespassing.

004.07D The site shall be supervised to satisfy requirements of these rules and regulations; placarding or posting instructions shall be used as a supplement to on-site supervision.

004.07E Access to the site shall be permitted only during the hours when operating personnel are on the site.

004.07F All vehicular access points shall be equipped with gates that can be locked. Operating procedures shall be clearly listed on signs posted at the site entrance.

004.08 Surface Water Requirements. A solid waste disposal area shall not:

004.08A Cause a discharge of pollutants into waters of the state, including wetlands, that violate any requirements of Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

004.08B Cause the discharge of a non-point source of pollution to waters of the State that violate any requirement of an area-wide or state-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended (33 U.S.C. 1251 et seq).

004.09 An owner or operator shall not accept solid waste at the facility if the storage capacity has been reached. Solid waste shall only be stored in areas designated for storage.

004.10 Liquids Restrictions.

004.10A Bulk or non-containerized liquid wastes shall not be placed in a solid waste disposal area unless:

004.10A1 The waste is household waste other than septic waste; or

004.10A2 The waste is leachate or gas condensate derived from the solid waste disposal area and the solid waste disposal area is designed with a composite liner and leachate collection system described in section 003.

004.10B Containers holding liquid waste may not be placed in a solid waste disposal area unless:

004.10B1 The container is a small container similar in size to that normally found in household waste;

004.10B2 The container is designed to hold liquids for use other than storage; or

004.10B3 The waste is household waste.

004.11 Any materials salvaged from the solid waste disposal area shall be removed daily or stored in a manner protective of the public health and environment.

004.12 The following activities shall be prohibited in conjunction with, or upon the site of a solid waste disposal area:

004.12A All scavenging operations;

004.12B All grazing or feeding of farm or domestic animals.

004.13 For any area where wastes will not be disposed for a period of one hundred eighty (180) days or longer, that area shall be covered with the required daily cover material and an additional twelve (12) inches of intermediate cover. Vegetative cover shall be established as soon as possible on these areas.

004.14 All completed areas of a solid waste disposal area shall be properly reclaimed with final cover pursuant to the requirements of Section 005 of these regulations.

004.15 On-site vegetation should be cleared only as necessary to conduct an efficient operation and to comply with these rules and regulations. Natural windbreaks, such as green belts, should be maintained where they will improve the appearance and operation of the disposal site.

004.16 Reasonable measures shall be taken to control dust during excavation, vehicle movement or covering deposits.

004.17 General operating requirements for municipal solid waste disposal areas and delisted waste disposal areas.

004.17A Litter Control Requirements.

004.17A1 Portable litter fences or other devices shall be used in the immediate vicinity of the working face and at other appropriate locations to control blowing litter.

004.17A2 At the end of each operating day, or more often as required, litter shall be removed from the fences and the grounds and incorporated into the working face. Alternatively, the litter may be containerized for disposal on the next operating day.

004.17A3 Wastes that are easily moved by wind shall be covered as necessary throughout the operating day to prevent their becoming airborne and scattered.

004.17B Cover material requirements.

004.17B1 Except as provided in 004.17B2 of this chapter, an owner or operator of a municipal solid waste disposal area shall cover waste with six (6) inches of earthen material at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging.

004.17B2 Alternative materials of an alternative thickness may be approved by the Department if an owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

004.17B3 The Department may grant a temporary waiver from the requirements of 004.17B1 and 004.17B2 if an owner or operator demonstrates that there are extreme climatic conditions that make meeting such requirements impractical. All periods during which daily cover is not applied shall be entered in the operating record.

004.17B4 Owners and operators of delisted waste disposal areas shall cover deposited materials in the manner specified in the operational plan.

004.17B5 Owners and operators of industrial waste disposal areas shall cover deposited materials as needed to control disease vectors, fires, odors, blowing litter, fugitive dust, and scavenging.

004.17C Explosive Gases Control.

004.17C1 An owner or operator of a municipal solid waste disposal area shall ensure that:

004.17C1(a) The concentration of methane gas generated by the facility does not exceed twenty-five percent (25%) of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components); and

004.17C1(b) The concentration of methane gas does not exceed the lower explosive limit for methane at the facility property boundary.

004.17C2 Owners or operators of a municipal solid waste disposal area shall implement a routine methane monitoring program to ensure that the standards of 004.17C1 of this chapter are met. The monitoring program shall be

implemented no later than October 1, 1993 and shall be included in the facility's operational plan.

004.17C2(a) The type and frequency of monitoring shall be determined by the following factors:

004.17C2(a)(1) Soil conditions;

004.17C2(a)(2) The hydrogeologic conditions surrounding the facility;

004.17C2(a)(3) The hydraulic conditions surrounding the facility; and

004.17C2(a)(4) The location of facility structures and property boundaries.

004.17C2(b) The minimum frequency of monitoring shall be quarterly.

004.17C3 If methane gas levels exceeding the limits specified in 004.17C1 of this chapter are detected, an owner or operator shall:

004.17C3(a) Immediately take all necessary steps to ensure protection of human health;

004.17C3(a)(1) Immediately notify the Department;

004.17C3(a)(2) Within seven (7) days of detection, place in the operating record the methane gas levels detected and a description of the steps taken to protect human health;

004.17C3(a)(3) Within sixty (60) days of detection: the owner or operator shall implement a remediation plan for the methane gas releases which describes the nature and extent of the problem and the proposed remedy. A copy of the plan shall be placed in the operating record. The owner or operator shall notify the Department that the plan has been implemented.

004.17C3(a)(4) The Department may establish alternative schedules for compliance with 004.17C3(a)(2) and 004.17C3(a)(3) of this chapter.

004.17D Solid waste received at a municipal solid waste disposal area shall be deposited in the smallest practical area and shall occur at the toe of the slope and in a manner which controls windblown materials. Waste may be deposited at locations other than the toe of the slope if site conditions do not allow access to the toe or instances for depositing waste at locations other than the toe of the slope are in the operational plan.

004.17D1 Unloading shall be supervised.

004.17D2 Litter fences shall be used to prevent blowing litter from the unloading site. The fill and surrounding area shall be policed as necessary to collect all scattered material.

004.17D3 Sufficient equipment and personnel shall be available to operate the solid waste disposal area according to the approved plan.

004.17D4 Arrangements shall be made for access to back up equipment within a reasonable time.

004.17D5 Leachate collections systems shall operate according to operational plan. Leachate shall be collected and transported to a waste water treatment facility or treated as indicated in Section 004.10A2.

004.17D6 Dead animals, carcasses, or parts thereof may be placed in a municipal solid waste disposal area, with the following exception:

004.17D6(a) Diseased animals shall be disposed pursuant to the requirements of Neb. Rev. Stat. §54-744.

004.18 The operational plan for a solid waste disposal area shall include a description of the methods of operations which comply with the requirements of 004.01 to 004.17. The operational plan shall also include:

004.18A A description of the days and hours of operations;

004.18B A description of the number and duties of employees;

004.18C A listing of sources and types of waste to be received; and an estimate of daily quantity of wastes to be received; origin of wastes to be received; and load inspection techniques;

004.18D Numbers, type and size of equipment on site as well as provisions for obtaining back up equipment, if necessary;

004.18E A plan for extinguishing fires other than those specified in 004.05 of this chapter;

004.18F A contingency plan for addressing reasonably foreseeable events including, but not limited to, wet weather, high winds, frozen conditions, fires, or natural disaster;

004.18G A schedule of filling; methods and compaction of wastes; and a phased site development plan; and

004.18H The types and sources of daily, intermediate, and final cover to be used.

004.19 Additional operational requirements to be included in the operational plan for land application units for repeated disposal or treatment of special wastes shall include:

004.19A Methods of operation shall be described, including windrow, static pile or other method, and added to the operational plan;

004.19B If necessary, chemical analysis of the materials to be land applied; and

004.19C If determined necessary by the Department, provisions for at least annual laboratory analysis of underlying soils for leachate detection.

005 Closure criteria. Owners or operators of solid waste disposal areas shall close according to the approved closure plan, and shall install the final cover within six months of the last receipt of waste.

005.01 Those solid waste disposal areas, receiving waste after October 1, 1993, shall close all areas which have not received final cover, in accordance with the requirements of sections 005.01A to 005.01E below.

005.01A A final cover system shall be installed which shall be comprised of an erosion layer underlain by an infiltration layer as follows:

005.01A1 The infiltration layer shall be comprised of a minimum of eighteen (18) inches of earthen material that has a permeability less than or equal to the permeability of the bottom liner system or natural subsoil present, or a permeability no greater than  $1 \times 10^{-5}$  centimeters per second, measured at the site, whichever is less; and

005.01A2 The erosion layer shall consist of a minimum of eighteen (18) inches of earthen material that is capable of sustaining adequate vegetative cover.

005.01B The applicant may request an alternate final cover design that includes:

005.01B1 An infiltration layer that achieves an equivalent reduction in infiltration as the infiltration layer specified in 005.01A1 of this chapter.

005.01B2 An erosion layer that provides equivalent protection from wind and water erosion as the erosion layer specified in 005.01A2 of this chapter.

005.01C Final surface grades and side slopes of the closed solid waste disposal area shall prevent run-on and runoff from eroding or otherwise damaging the final cover.

005.01D Appropriate vegetative cover shall be established and maintained as soon as practical after final grading.

005.01E Unauthorized public access, vehicular traffic, and illegal dumping shall be prevented by the use of artificial barriers, natural barriers, or both, along with signs prohibiting such access.

005.02 Owners or operators of a land application unit for repeated disposal or treatment of special waste shall close in accordance with the approved closure plan as described in section 005.11.

005.03 The requirements of this section apply to solid waste disposal areas accepting waste after October 1, 1993. Within 90 days following the installation of the final cover system, the owner or operator shall record a permanent notation on the deed to the disposal area property, or some other permanent property record or instrument that is normally examined during the title search and shall notify the Department that such notation or instrument has been recorded in the permanent records of the county Register of Deeds. A copy of this record and notification shall be placed in the operating record. This notation or instrument must, in perpetuity, notify any potential purchaser of the following information:

005.03A The existence of a closed solid waste disposal area on the property;

005.03B The type, depth and location of the waste on the property, as well as the existence of any monitoring systems; and

005.03C Any restrictions on the use of the property which may be provided to protect the integrity of the final cover, liner, monitoring systems or any other components of the containment system.

005.04 The owner or operator of a permitted solid waste disposal area shall notify the Department, in writing, at least 180 days prior to the date the owner or operator expects to begin closure. Such notice shall also be placed in the operating record.

005.05 The owner or operator of a solid waste disposal area shall begin implementation of the closure plan required in 005.10 and 005.11 of this rule within thirty (30) days after the date on which the facility receives the final volume of waste. The owner or operator shall notify the

Department, in writing, of the date of the receipt of the final volume of waste, the date of the initiation of closure, and the date of the installation of the final cover system, as applicable. Copies of these notices shall also be placed in the operating record.

005.06 The owner or operator of a solid waste disposal area shall complete closure activities in accordance with the closure plan within 180 days after the last receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, due to circumstances beyond the operator's control, take longer than 180 days and the owner or operator has taken, and will continue to take, all steps to prevent threats to human health and the environment from the unclosed solid waste disposal area.

005.07 Following the closure of a solid waste disposal area or any part of the area, the owner or operator shall submit a certification to the Department signed by an independent professional engineer registered in the State of Nebraska verifying that closure has been completed in accordance with the approved closure plan. This certification shall also be placed in the operating record.

005.08 Owners or operators shall not implement modifications to the design or operation of a solid waste disposal area which results in modifications to the closure plan without prior approval of the Department.

005.09 No person shall excavate, disturb the final cover, or remove any deposited materials from any active or closed solid waste disposal area without having received prior approval from the Department. Requests for approval shall demonstrate that disturbance of the final cover, liner, or other component of the containment system, including any removal of waste, will not increase the potential threat to human health and the environment and shall include:

005.09A An operational plan identifying the planned activities and the area involved;

005.09B A survey identifying the lines and grades defining the limits of the proposed excavation both vertically and horizontally;

005.09C Estimated number of cubic yards and type of material to be excavated;

005.09D Location where excavated material is to be deposited;

005.09E Type of equipment to be used to transport material;

005.09F Estimated time required for excavation and disposal procedure; and

005.09G Provisions for closing the excavated or disturbed area.

005.10 Closure plan. Owners or operators of solid waste disposal areas accepting waste after October 1, 1993 shall prepare and submit a written closure plan that describes the steps necessary to close the solid waste disposal areas at any point during the active life of the area. This closure plan and any revisions shall be placed in the operating record, with copies of any such revisions forwarded to the Department. The closure plans shall include but not be limited to, a description of the methods of closure which comply with the requirements of 005 and the following:

005.10A A description of the final cover designed in accordance with the methods and procedures to be used to install the cover;

005.10B An estimate of the largest area of the solid waste disposal area ever requiring a final cover at any time during the active life of the solid waste disposal area;

005.10C An estimate of the maximum inventory of wastes ever on-site over the active life of the solid waste disposal area;

005.10D A schedule for the completion of all activities necessary to satisfy the closure criteria; and

005.10E Installation of any or all of the following, as required by the Department and not already present at the site: landfill gas control systems, leachate collection systems, and/or groundwater monitoring wells.

005.11 The owner or operator of a land application unit for repeated disposal or treatment of special waste shall prepare a written closure plan that describes the steps necessary to close the facility at any point during the active life of the facility. This closure plan and any revisions shall be placed in the operating record. The closure plans shall include, but are not limited to the following:

005.11A A description of the activities required to close the site in a manner protective of human health and the environment;

005.11B A description of the post-closure plans for the inactive site;

005.11C Methods or means for notifying facility users of the closure of the facility; and

005.11D A description of the location where all materials remaining at the site will be disposed, when applicable.

006 Post-closure criteria. The owners or operators of solid waste disposal areas, accepting waste after October 1, 1993, shall provide for post-closure care for a period of thirty (30) years.

006.01 Post-closure care shall include, at a minimum, the performance and recording of each of the following activities in the operating record:

006.01A Annual inspection and maintenance of the cover to ensure integrity and effectiveness, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover;

006.01B Annual inspection and maintenance of access control structures and posted signs;

006.01C Maintenance and operation of any existing leachate collection system;

006.01D Maintenance and semiannual sampling and testing of any existing groundwater monitoring well, and maintenance and quarterly sampling of any landfill gas monitoring systems. Results of testing shall be reported to the Department, and placed in the operating record; and

006.01E Maintenance and operation of any other environmental control features which are included in the design and operation of the solid waste disposal area or required by the Department to protect human health and the environment.

006.02 Owners or operators of solid waste disposal areas accepting waste after October 1, 1993, shall submit a post-closure plan to the Department for approval. This post-closure plan and any revisions shall be placed in the operating record, with copies of any such revisions forwarded to the Department.

006.03 Post-closure plans required pursuant to 006.02 shall include annual maintenance and monitoring activities to be performed at a solid waste disposal area for the specified post-closure period after the approved completion of closure. The length of the post-closure period may be increased, if the Department determines that the lengthened period is necessary to protect human health and the environment. The length of the post-closure period may be reduced, if the Department determines that the reduced period is sufficient to protect human health and the environment.

006.04 A detailed written post-closure plan shall include, at a minimum, the following information:

006.04A A description of the monitoring and maintenance activities required in 006 for each solid waste disposal area and the frequency at which these activities will be performed;

006.04B Name, address, and telephone number of the person or office to contact about the closed solid waste disposal area during the post-closure period; and

006.04C A description of the planned uses of the property during the post-closure period and a description of the period of time during which access to the facility will be controlled. Post-closure use of the property shall not disturb the integrity of the final cover, liner, or any other components of the containment system, or the function of the monitoring systems.

006.05 The owner or operator shall begin implementing the post-closure plan required in Section 006.02 immediately after closure is completed and continue implementing the plan over the entire post-closure period.

006.06 Following the post-closure period of each solid waste disposal area, the owner or operator shall submit a certification to the Department signed by an independent professional engineer registered in the State of Nebraska verifying that post-closure care has been completed in accordance with the approved post-closure plan.

007 Required Maps and Drawings. The permit application for a solid waste disposal area shall include the following maps. When a structure described in 007.03 and 007.04 is not present at the site, a notation shall be made on the required map or drawing.

007.01 A topographic map or maps of any solid waste disposal area drawn to the scale of 200 feet to the inch or larger, containing 5-foot contour intervals where the relief exceeds 20 feet, and 2-foot contour intervals where the relief is 20 feet or less, and referred to a United States Geological Survey datum.

007.02 A topographic map indicating the proposed final contours and landscaping of completed solid waste disposal areas with a statement of the proposed final use of the site, if known.

007.03 Maps of the site, drawn to scale, indicating the location of:

007.03A Ground water monitoring wells and gas monitoring locations, if required;

007.03B Points of entrance to and exit from the facility and to and from the operating area of the facility;

007.03C Loading, dumping and any temporary storage areas;  
007.03D Interior roads and ramps;  
007.03E Devices for controlling litter;  
007.03F Devices for controlling unauthorized access to the facility site;  
007.03G Drainage facilities, structures, walls, cribbing, surface protection devices, and any other devices as are necessary to comply with applicable water quality standards;  
007.03H Fire protection facilities;  
007.03I Utilities to service the site;  
007.03J Gas and oil wells;  
007.03K High tension power lines;  
007.03L Fuel transmission pipelines;  
007.03M Salvage operations;  
007.03N Fill area;  
007.03O Borrow areas; and  
007.03P Provisions for concealing a solid waste disposal area from public view.

007.04 Maps of the area within one-quarter mile of the boundaries of the site, drawn to scale, showing the location of:

007.04A Waterways and surface drains;  
007.04B Borings, wells, springs, and their surface elevations, and depths and elevations of water levels;  
007.04C Field tile drains; and  
007.04D Underground and surface mines, elevations of mine pools, and mine pool discharges.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2036; 81-1504 (1), (2), (7), (11)-(13), (20); 81-1505; 81-1528 (7);

Legal Citation: Title 132, Ch.3, Nebraska Department of Environmental Quality

#### **Chapter 4 - CRITERIA FOR FOSSIL FUEL COMBUSTION ASH DISPOSAL AREAS**

001 Applicability. The requirements of this chapter apply to all fossil fuel combustion ash disposal areas required to obtain a permit pursuant to Chapter 2, 001.

002 Locational Criteria. New fossil fuel combustion ash disposal areas and lateral expansions of existing fossil fuel combustion ash disposal areas shall be located in accordance with the standards as described in this section. The application shall include documentation verifying that the fossil fuel combustion ash disposal area complies with the following.

002.01 A fossil fuel combustion ash disposal area shall not be located in an area where the Department finds that the solid waste activities will have a detrimental effect on the waters of the state based on the following criteria:

002.01A Current and projected use of water resources in the potential zone of influence of the site;

002.01B Ground water elevation and proposed separation between the lowest point of the lowest cell and the predicted maximum water table elevation; areas having high ground water tables may be restricted to landfill operations which will maintain a safe vertical distance between deposited refuse and the maximum water table elevation;

002.01C Potential interrelationship of the local aquifers, and surface waters based on historical records or other sources of information; and

002.01D Background and initial quality of water resources in the potential zone of influence of the site.

002.02 The application shall include, a description of the:

002.02A Soil and bedrock to a depth adequate to allow evaluation of the water quality protection provided by the soil and bedrock;

002.02B Potential for leachate generation, and of pollution of the waters of the state;

002.02C Ground water condition, including ground water flow below and adjacent to the proposed facility, with an appraisal of the effect of the facility on ground water and surface waters;

002.02D Name of and distance to nearby surface waters; and

002.02E Land use and population density of the proposed facility and of the area surrounding the facility within one mile of the facility boundaries.

002.03 No person shall locate a fossil fuel combustion ash disposal area within one thousand (1,000) feet from the nearest edge of an existing right-of-way of any state, interstate or federal highway unless the active area is screened by natural objects, plantings, fences, or other appropriate means so as to not be visible from such highway.

002.04 Floodplains. A new fossil fuel combustion ash disposal area, or a lateral or vertical expansion of these facilities, shall not be located in a 100-year flood plain, unless the owner or operator can demonstrate that the disposal area will not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.

002.05 Wetlands. A new fossil fuel combustion ash disposal area or lateral expansion shall not be located in wetlands.

002.06 Unstable areas. An owner or operator of a new fossil fuel combustion ash disposal area, existing fossil fuel combustion ash disposal area, or lateral expansion located in an unstable area shall demonstrate in the operating record and notify the Department of the demonstration in the operating record that engineering measures have been incorporated into the facility's design to ensure that the integrity of the containment systems of a fossil fuel combustion ash disposal area will not be disrupted.

002.06A An owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

002.06A1 On-site or local soil conditions that may result in significant differential settling;

002.06A2 On-site or local geologic or geomorphologic features; and

002.06A3 On-site or local human-made features or events, both surface and subsurface.

002.06A4 For purposes of this section,

002.06A4(a) "Unstable area" shall mean a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the facility structural components responsible for preventing releases from the facility. This term may include poor foundations conditions, areas susceptible to mass movements, and Karst terranes.

002.06A4(b) "Poor foundation conditions" shall mean those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of a solid waste management facility.

002.06A4(c) "Areas susceptible to mass movements" shall mean those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the solid waste management facility, because of natural or human-induced events, results in the down slope transport of soil and rock material by means of gravitational influence.

002.06A4(c)(1) Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluction, block sliding, and rock fall.

002.06A4(d) "Karst terranes" shall mean areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

003 Design Criteria. The construction and design of all fossil fuel combustion ash disposal areas shall:

003.01 Be protective of human health and the environment;

003.02 Not result in pollution of the waters of the state; and

003.03 In the case of a new fossil fuel combustion ash disposal area or a lateral expansion of an existing fossil fuel combustion ash disposal area, that has not received waste prior to October 1, 1993, the construction and design plans shall include the following:

003.03A A description of the sequence of earth materials at the proposed facility to a depth sufficient to assure the reliability of the facility design;

003.03B A schedule of construction and a construction quality assurance plan as described in 003.04C;

003.03C Data obtained from soil samples taken from the proposed facility site which describe the soil classification, grain size distribution, permeability, compatibility, and ion-exchange properties of the subsurface materials for those strata which are essential to the design of the facility; and

003.03D If exploration holes are drilled to obtain data, information showing the manner of plugging and sealing such holes.

003.04 The construction and design plans for all new or lateral expansions of an existing fossil fuel combustion ash disposal area shall also include the following documentation.

003.04A A liner designed and constructed according to one of the following designs:

003.04A1 With a composite liner consisting of two components: the upper component must consist of a minimum 30-mil flexible membrane liner (FML); and the lower component must consist of at least a two (2) foot layer of compacted soil with a hydraulic conductivity of no more than  $1 \times 10^{-7}$  cm/sec. FML components consisting of high density polyethylene (HDPE) shall be at least 60-mil. thick. The FML must be installed in direct and uniform contact with the compacted soil component; or

003.04A2 In accordance with a design approved by the Department, alternate designs shall ensure that the concentration values listed in Appendix III will not be exceeded in the uppermost aquifer at the relevant point of compliance, as specified by the Department under 003.04D of this chapter. The Department shall consider the following factors when approving the design of liner systems:

003.04A2(a) The hydrogeologic characteristics of the facility and the surrounding land;

003.04A2(b) The climatic characteristics of the area;

003.04A2(c) The volume and type of fossil fuel combustion ash to be deposited; and

003.04A2(d) The volume and physical and chemical characteristics of the leachate.

003.04A3 All required compacted soil components shall be constructed in lifts which do not exceed six (6) inches in thickness.

003.04A3(a) Uniform compaction of the lifts shall be assured through the use of appropriate equipment. Liners shall be supported by material of sufficient bearing strength to prevent subsidence and failure of any component. The bearing strength shall be documented through materials testing.

003.04B A leachate collection and treatment system shall be constructed where necessary to protect the waters of the state. Any required discharge permit shall be

obtained from the Department. The leachate collection system shall be maintained as required by section 006.

003.04B1 Leachate collection systems shall be designed and constructed to maintain less than a 30-cm. depth of leachate over the liner.

003.04C A construction quality assurance plan for engineered containment systems and leachate collection systems shall be submitted with the application. The plan shall assure adequate construction and testing of the containment system components as called for in design specifications in the facility plan. The construction quality assurance plan shall be prepared and signed by a professional engineer registered in the State of Nebraska.

003.04D The relevant point of compliance noted in 003.04A2 of this chapter shall be located at the waste management unit boundary. The applicant may request the establishment of an alternate relevant point of compliance. The alternate relevant point of compliance shall be no more than 150 meters from the waste management unit boundary and shall be located on land owned by the owner of the fossil fuel combustion ash disposal area. The Department will base the decision to approve or deny the applicant's request upon consideration of the following factors:

003.04D1 The hydrogeologic characteristics of the facility and the surrounding land;

003.04D2 The volume and physical and chemical characteristics of the leachate;

003.04D3 The quantity, quality and direction of flow of ground water;

003.04D4 The proximity and withdrawal rate of the ground water users;

003.04D5 The availability of alternative drinking supplies;

003.04D6 Method of operation as outlined in the operational plan;

003.04D7 The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water, and whether the ground water is currently used or reasonably expected to be used for drinking water;

003.04D8 Public health, safety, and welfare effects; and

003.04D9 Practicable capability of the owner or operator.

003.04E Fossil fuel combustion ash disposal area run-on/run-off control systems shall be designed, constructed and maintained to meet the following criteria:

003.04E1 A run-on control system to prevent flow onto the active portion of the fossil fuel combustion ash disposal area during the peak discharge from a twenty-five (25) year storm; and

003.04E2 A run-off control system from the active portion of the fossil fuel combustion ash disposal area to collect and control, at least, the water volume resulting from a twenty-four (24) hour, twenty-five (25) year storm.

003.04E3 Surface water courses and run-off shall be diverted from the fossil fuel combustion ash disposal area by devices such as trenches, conduits and proper grading to minimize infiltration and erosion of cover material. The fossil

fuel combustion ash disposal area shall be constructed and graded so as to promote rapid surface water run-off without excessive erosion.

003.04E4 Run-off from the active portion of the fossil fuel combustion ash disposal area shall be handled in accordance with 004.05.

003.04E5 Regrading shall be done as required during construction, after completion, and during the placement of fossil fuel combustion ash to avoid ponding of precipitation and to maintain cover material integrity. On-site drainage structures and channels shall be designed for at least a twenty-four (24) hour, twenty-five (25) year storm.

004 Operational Criteria. Operations of all fossil fuel combustion ash disposal areas shall be in accordance with the approved operational plan and Chapter 2 requirements.

004.01 A fossil fuel combustion ash disposal area shall be designed and operated at all times so as to not constitute a hazard, or a threat to human health or the environment.

004.02 A fossil fuel combustion ash disposal area shall only accept nonhazardous waste defined as fossil fuel combustion ash. All unacceptable waste shall be removed from the site daily.

004.03 An owner or operator of a fossil fuel combustion ash disposal area shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, supervision, or any other measures, as appropriate, to protect human health and the environment.

004.04 Access roads to the site shall be maintained so as to be negotiable by vehicles.

004.05 Surface Water Requirements. A fossil fuel combustion ash disposal area shall not:

004.05A Cause a discharge of pollutants into waters of the state, including wetlands, that violate any requirements of Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

004.05B Cause the discharge of a non-point source of pollution to waters of the State that violate any requirement of an area-wide or state-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended (33 U.S.C. 1251 et seq).

004.06 An owner or operator shall not accept solid waste at the facility if the storage capacity has been reached. Solid waste shall only be stored in areas designated for storage.

004.07 Liquids Restrictions. Bulk or non-containerized liquid shall not be placed in a fossil fuel combustion ash disposal area unless:

004.07A The liquid is leachate derived from the fossil fuel combustion ash disposal area and the disposal area is designed with a composite liner and leachate collection system described in section 003.04;

004.07B The liquid is water used for dust control; or

004.07C The liquid is water used to facilitate the placement of the fossil fuel combustion ash in the disposal area.

004.08 Any materials salvaged from the fossil fuel combustion ash disposal area shall be removed daily or stored in a manner protective of the public health and environment.

004.09 All completed areas of a fossil fuel combustion ash disposal area shall be properly reclaimed with final cover pursuant to the requirements of section 005 of these regulations.

004.10 Measures shall be taken to control fugitive dust in accordance with Title 129 - Nebraska Air Quality Regulations during excavation, vehicle movement, placement of ash or covering deposits.

004.11 The operational plan for a fossil fuel combustion ash disposal area shall include a description of the methods of operations which comply with the requirements of 004.01 to 004.10. The operational plan shall also include:

004.11A A description of the days and hours of operations;

004.11B A listing of sources and types of fossil fuel combustion ash to be received; and an estimate of daily quantity to be received;

004.11C A contingency plan for addressing reasonably foreseeable events including, but not limited to, wet weather, high winds, or natural disaster; and

004.11D A schedule of filling; fossil fuel combustion ash placement methods; and a phased site development plan.

005 Closure criteria. Owners or operators of fossil fuel combustion ash disposal areas shall close according to the approved closure plan, and shall install the final cover within six (6) months of the last receipt of waste.

005.01 Owners or operators of fossil fuel combustion ash disposal areas shall close in the following manner:

005.01A The final cover shall consist of at least two (2) feet of earthen material capable of sustaining adequate vegetative cover.

005.01B Final grades and side slopes of the closed area shall prevent run-on and runoff from eroding or otherwise damaging the final cover.

005.01C Appropriate vegetative cover shall be established and maintained as soon as practical after final grading.

005.01D Unauthorized public access, vehicular traffic, and illegal dumping shall be prevented by the use of artificial barriers, natural barriers, or both, along with signs prohibiting such access.

005.02 The requirements of this section apply to all fossil fuel combustion ash disposal areas, accepting waste after October 1, 1993. Within 90 days following the installation of the final cover system, the owner or operator shall record a permanent notation on the deed to the disposal area property, or some other permanent property record or instrument that is normally examined during the title search and shall notify the Department that such notation or instrument has been recorded in the permanent records of the county Register of Deeds. A copy of this record and notification shall be placed in the operating record. This notation or instrument must, in perpetuity, notify any potential purchaser of the following information:

005.02A The existence of a closed fossil fuel combustion ash disposal area on the property;

005.02B The type, depth and location of the fossil fuel combustion ash on the property, as well as the existence of any monitoring systems; and

005.02C Any restrictions on the use of the property which may be provided to protect the integrity of the final cover, liner, monitoring systems or any other components of the containment system.

005.03 The owner or operator of a fossil fuel combustion ash disposal area shall notify the Department, in writing, at least 180 days prior to the date the owner or operator expects to begin closure. Such notice shall also be placed in the operating record.

005.04 The owner or operator of a fossil fuel combustion ash disposal area shall begin implementation of the closure plan required in 005.09 of this rule within thirty (30) days after the date on which the permitted facility receives the final volume of waste. The owner or operator shall notify the Department, in writing, of the date of the receipt of the final volume of waste, the date of the initiation of closure, and the date of the installation of the final cover system, as applicable. Copies of these notices shall also be placed in the operating record.

005.05 The owner or operator of a fossil fuel combustion ash disposal area shall complete closure activities in accordance with the closure plan within 180 days after the last receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, due to circumstances beyond the operator's control, take longer than 180 days and the owner or operator has taken, and will continue to take, all steps to prevent threats to human health and the environment from the unclosed fossil fuel combustion ash disposal area.

005.06 Following the closure of a fossil fuel combustion ash disposal area or any part of the area, the owner or operator shall submit a certification to the Department signed by a professional engineer registered in the State of Nebraska verifying that closure has been completed in accordance with the approved closure plan. This certification shall also be placed in the operating record.

005.07 Owners or operators shall not implement modifications to the design or operation of a fossil fuel combustion ash disposal area which results in modifications to the closure plan without prior approval of the Department.

005.08 No person shall excavate, disturb the final cover, or remove any deposited materials from any closed fossil fuel combustion ash disposal area without having received prior approval from the Department. Requests for approval shall demonstrate that disturbance of the final cover, liner, or other component of the containment system, including any removal of waste, will not increase the potential threat to human health and the environment and shall include:

005.08A An operational plan identifying the planned activities and the area involved;

005.08B A survey identifying the lines and grades defining the limits of the proposed excavation both vertically and horizontally;

005.08C Estimated number of cubic yards and type of material to be excavated;

005.08D Location where excavated material is to be deposited;

005.08E Type of equipment to be used to transport material;

005.08F Estimated time required for excavation and disposal procedure; and

005.08G Provisions for closing the excavated or disturbed area.

005.09 Closure Plan. Owners or operators of fossil fuel combustion ash disposal areas accepting waste after October 1, 1993 shall prepare and submit a written closure plan that describes the steps necessary to close the fossil fuel combustion ash disposal area at any point during the active life of the area. This closure plan and any revisions shall be placed in the operating record, with copies of any such revisions forwarded to the Department. The closure plans shall include, but not be limited to, the following:

005.09A A description of the final cover designed in accordance with the methods and procedures to be used to install the cover;

005.09B A description of the types and sources of final cover material to be used;

005.09C An estimate of the largest area of the solid waste disposal area ever requiring a final cover at any time during the active life of the solid waste disposal area;

005.09D An estimate of the maximum inventory of wastes ever on-site over the active life of the solid waste disposal area;

005.09E A schedule for the completion of all activities necessary to satisfy the closure criteria; and

005.09F Installation of any or all of the following, as required by the Department and not already present at the site: leachate collection systems and/or groundwater monitoring wells.

006 Post-closure criteria. The owners or operators of all fossil fuel combustion ash disposal areas accepting waste after October 1, 1993 shall provide for post-closure care for a period of five (5) years.

006.01 Post-closure care shall include, at a minimum, the performance and recording of each of the following activities in the operating record:

006.01A Annual inspection and maintenance of the cover to ensure integrity and effectiveness, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover;

006.01B Annual inspection and maintenance of access control structures and posted signs;

006.01C Maintenance and operation of any existing leachate collection system;

006.01D Maintenance and semiannual sampling and testing of any existing groundwater monitoring well systems. Results of testing shall be reported to the Department, and placed in the operating record; and

006.01E Maintenance and operation of any other environmental control features which are included in the design and operation of the fossil fuel combustion ash disposal area or required by the Department to protect human health and the environment.

006.02 Owners or operators of fossil fuel combustion ash disposal areas accepting waste after October 1, 1993, shall submit a post-closure plan to the Department for approval. This post-

closure plan and any revisions shall be placed in the operating record, with copies of any such revisions forwarded to the Department.

006.03 Post-closure plans required pursuant to 006.02 shall include annual maintenance and monitoring activities to be performed at a fossil fuel combustion ash disposal area for the specified post-closure period after the approved completion of closure. The length of the post-closure period may be increased, if the Department determines that the lengthened period is necessary to protect human health and the environment. The length of the post-closure period may be reduced, if the Department determines that the reduced period is sufficient to protect human health and the environment.

006.04 A detailed written post-closure plan shall include, at a minimum, the following information:

006.04A A description of the monitoring and maintenance activities required in 006.01 for each fossil fuel combustion ash disposal area and the frequency at which these activities will be performed;

006.04B Name, address, and telephone number of the person or office to contact about the closed fossil fuel combustion ash disposal area during the post-closure period;

006.04C A description of the planned uses of the property during the post-closure period and a description of the period of time during which access to the facility will be controlled. Post-closure use of the property shall not disturb the integrity of the final cover, liner, or any other components of the containment system, or the function of the monitoring systems.

006.05 The owner or operator shall begin implementing the post-closure plan required in Section 006.02 immediately after closure is completed and continue implementing the plan over the entire post-closure period.

006.06 Following the post-closure period of each fossil fuel combustion ash disposal area, the owner or operator shall submit a certification to the Department signed by a professional engineer registered in the State of Nebraska verifying that post-closure care has been completed in accordance with the approved post-closure plan.

007 Required Maps and Drawings. The permit application for a fossil fuel combustion ash disposal area shall include the following maps and drawings. When a structure described in 007.03 and 007.04 is not present at the site, a notation shall be made on the required map or drawing.

007.01 A topographic map or maps of the fossil fuel combustion ash disposal area drawn to the scale of 200 feet to the inch or larger, containing 5-foot contour intervals where the relief exceeds 20 feet, and 2-foot contour intervals where the relief is 20 feet or less, and referred to a United States Geological Survey datum.

007.02 A topographic map indicating the proposed final contours and landscaping of completed fossil fuel combustion ash disposal areas with a statement of the proposed final use of the site, if known.

007.03 Maps of the site, drawn to scale, indicating the location of:

007.03A Ground water monitoring well locations;

007.03B Points of entrance to and exit from the facility and to and from the operating area of the facility;

007.03C Loading, dumping and any temporary storage areas;

007.03D Interior roads and ramps;

007.03E Devices for controlling unauthorized access to the facility site;

007.03F Drainage facilities, structures, walls, cribbing, surface protection devices, and any other devices as are necessary to comply with applicable water quality standards;

007.03G Utilities to service the site;

007.03H Gas and oil wells;

007.03I High tension power lines;

007.03J Fuel transmission pipelines;

007.03K Salvage operations;

007.03L Fill area;

007.03M Borrow areas; and

007.03N Provisions for concealing a fossil fuel combustion ash disposal area from public view.

007.04 Maps of the area within one-quarter mile of the boundaries of the site, drawn to scale, showing the location of:

007.04A Waterways and surface drains;

007.04B Borings, wells, springs, and their surface elevations, and depths and elevations of water levels;

007.04C Field tile drains; and

007.04D Underground and surface mines, elevations of mine pools, and mine pool discharges.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2036; 81-1504 (1), (2), (7), (11)-(13), (20); 81-1505; 81-1528 (7)

Legal Citation: Title 132, Ch. 4, Nebraska Department of Environmental Quality

## **Chapter 5 - CRITERIA FOR CONSTRUCTION AND DEMOLITION WASTE DISPOSAL AREAS**

001 Applicability. The requirements of this chapter apply to all construction and demolition waste disposal areas required to have a permit pursuant to Chapter 2, 001.

002 Locational criteria. Construction and demolition waste disposal areas shall be located in accordance with the standards as described in this section. The application shall include documentation verifying that the solid disposal area complies with the following.

002.01 The vertical separation between the lowest point of the lowest cell and the predicted maximum water table elevation shall be sufficient to maintain a ten (10) foot vertical distance between deposited waste and the water table elevation based on reliable existing regional data, if available. A lesser separation distance may be approved by the Director provided the applicant shows good cause.

002.02 The application shall include a description of the land use and population density of the proposed facility and of the area surrounding the facility within one mile of the facility boundaries.

002.03 Floodplains. A construction and demolition waste disposal area shall not be located in a 100-year floodplain, unless the owner or operator demonstrates that the location of the disposal area will not result in washout of solid waste.

002.04 Wetlands. A construction and demolition waste disposal area shall not be located in wetlands.

002.05 Unstable areas. An owner or operator of a construction and demolition waste disposal area located in an unstable area shall demonstrate in the permit application that engineering measures have been incorporated into the facility's design to ensure that the integrity of the final cover system of the construction and demolition waste disposal area will not be disrupted.

002.05A An owner or operator shall consider the following factors, at a minimum, when determining whether an area is unstable:

002.05A1 On-site or local soil conditions that may result in significant differential settling;

002.05A2 On-site or local geologic or geomorphologic features; and

002.05A3 On-site or local human-made features or events, both surface and subsurface.

002.05B For purposes of this section,

002.05B1 "Unstable area" shall mean a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the facility structural components responsible for preventing releases from the facility. This term may include poor foundations conditions, areas susceptible to mass movements, and Karst terranes.

002.05B2 "Poor foundation conditions" shall mean those areas where features exist which indicate that a natural or human-induced event may result in inadequate foundation support for the structural components of a solid waste management facility.

002.05B3 "Areas susceptible to mass movements" shall mean those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the solid waste management facility, because of natural or human-induced events, results in the down slope 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, soil fluction, block sliding, and rock fall.

002.05B4 "Karst terranes" shall mean areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terranes include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

003 Design criteria. Construction and demolition waste disposal areas shall be designed, constructed and operated to:

003.01 Be protective of human health and the environment;

003.02 Not result in pollution of the waters of the state; and

003.03 Include run-on/run-off control systems which shall be designed, constructed and maintained to meet the following criteria:

003.03A Surface water courses and run-on shall be diverted from the construction and demolition waste disposal area by devices such as trenches, conduits and proper grading to minimize infiltration and erosion of cover material.

003.03B Surface water courses and run-off shall be diverted from the construction and demolition waste disposal area by devices such as trenches, conduits and proper grading to minimize infiltration and erosion of cover material. The construction and demolition waste disposal area shall be constructed and graded so as to promote rapid surface water run-off without excessive erosion. Excessive erosion shall mean an erosion rate of five (5) tons per acre per year, or more.

003.03C Run-off from the active portion of the construction and demolition waste disposal area shall be handled in accordance with section 004 of this Chapter.

003.03D Regrading shall be done as required during construction and after completion to avoid ponding of precipitation and to maintain cover material integrity. On-site drainage structures and channels shall be designed for at least a twenty-four (24) hour, twenty-five (25) year storm.

003.04 A construction and demolition waste disposal area application shall include a construction quality assurance plan for any engineered containment systems, which shall be submitted with the application. The plan shall assure adequate construction and testing of the containment system components as called for in design specifications in the facility plan, and shall include a schedule of construction. The construction quality assurance plan shall be prepared and signed by a professional engineer registered in the State of Nebraska.

004 Operational criteria. Operations of all construction and demolition waste disposal areas shall be in accordance with the approved operational plan and Chapter 2 requirements.

004.01 A construction and demolition waste disposal area shall only accept waste defined as construction and demolition waste. All unacceptable wastes shall be removed from the site daily.

004.02 A construction and demolition waste disposal area shall be operated at all times so as to not constitute a hazard, or a threat to human health or the environment.

004.03 The operation of a construction and demolition waste disposal area shall include effective litter control and disease vector control programs.

004.04 Air Criteria. An owner or operator of a construction and demolition waste disposal area shall ensure that the facility does not violate any applicable requirements developed under Title 129 - Nebraska Air Quality Regulations.

004.05 Access Requirements. An owner or operator of a construction and demolition waste disposal area shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate. All vehicular access points shall be equipped with gates that can be locked. All access control gates shall be locked during non-operating periods of the construction and demolition waste disposal area.

004.06 Surface Water Requirements. A construction and demolition waste disposal area shall not:

004.06A Cause a discharge of pollutants into waters of the state, including wetlands, that violate any requirements of Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

004.06B Cause the discharge of a non-point source of pollution to waters of the State that violate any requirement of an area-wide or state-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended.

004.07 An owner or operator shall not accept construction and demolition waste at the facility if the storage capacity has been reached. Construction and demolition waste shall only be stored in areas designated for storage.

004.08 Any materials salvaged from the construction and demolition waste disposal area shall be stored in a manner protective of human health and environment and removed within a reasonable time period.

004.09 Cover requirements. Owners and operators of construction and demolition waste disposal areas shall periodically cover with a sufficient amount of earthen material to adequately control disease vectors, fires, and blowing litter.

004.10 All completed areas of a construction and demolition waste disposal area shall be properly reclaimed with final cover pursuant to the requirements of section 005 of this chapter.

004.11 The operational plan for a construction and demolition waste disposal area shall include:

004.11A A contingency plan for addressing reasonably foreseeable events, including, but not limited to, wet weather, high winds, frozen conditions, fires or natural disasters; and

004.11B A schedule of filling; methods and compaction of wastes; and a phased site development plan.

005 Closure criteria. Owners and operators of construction and demolition waste disposal areas shall close according to the approved closure plan, and shall install the final cover within six (6) months of

the last receipt of waste. Owners or operators of all construction and demolition waste disposal areas shall close in the following manner.

005.01 The final cover shall consist of at least three (3) feet of earthen material and be capable of sustaining adequate vegetative cover. Lesser depths of final cover may be approved by the Director provided the applicant can show that the lesser amount is sufficient to minimize infiltration, erosion, settlement and promote surface water run-off.

005.02 Final grades and side slopes of the closed area shall prevent run-on and run-off from eroding or otherwise damaging the final cover.

005.03 Appropriate vegetative cover shall be established and maintained as soon as practical after final grading.

005.04 Within 90 days following the installation of the final cover system, the owner or operator shall record a permanent notation on the deed to the disposal area property, or some other permanent property record or instrument that is normally examined during the title search and shall notify the Department that such notation or instrument has been recorded in the permanent records of the county Register of Deeds. This notation or instrument must, in perpetuity, notify any potential purchaser of the following information:

005.04A The existence of a closed construction and demolition waste disposal area on the property;

005.04B The type, depth and location of the waste on the property, as well as the existence of any monitoring systems; and

005.04C Any restrictions on the use of the property which may be provided to protect the integrity of the final cover or any components of the containment system.

005.05 The owner or operator of a construction and demolition waste disposal area shall notify the Department, in writing, at least 180 days prior to the date the owner or operator expects to begin closure.

005.06 The owner or operator of a construction and demolition waste disposal area shall begin implementation of the closure plan required in section 005.11 of this rule within thirty (30) days after the date on which the facility receives the final volume of waste. The owner or operator shall notify the Department, in writing, of the date of the receipt of the final volume of waste, the date of the initiation of closure, and the date of the installation of the final cover system, as applicable.

005.07 The owner or operator of a construction and demolition waste disposal area shall complete closure activities in accordance with the closure plan within 180 days after the last receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, due to circumstances beyond the operator's control, take longer than 180 days and the owner or operator has taken, and will continue to take, all steps to prevent threats to human health and the environment from the unclosed construction and demolition waste disposal area.

005.08 Following the closure of the construction and demolition waste disposal area or any part of the area, the owner or operator shall submit a certification to the Department verifying that closure has been completed in accordance with the approved closure plan.

005.09 Owners or operators shall not implement modifications to the design or operation of a construction and demolition waste disposal area which results in modifications to the closure plan without prior approval of the Department.

005.10 No person shall excavate, disturb the final cover, or remove any deposited materials from any active or closed construction and demolition waste disposal area without having received prior approval from the Department. Requests for approval shall demonstrate that disturbance of the final cover, or other components of the containment system, including any removal of waste, will not increase the potential threat to human health and the environment and shall include:

005.10A An operational plan identifying the planned activities and the area involved;

005.10B A survey identifying the lines and grades defining the limits of the proposed excavation both vertically and horizontally;

005.10C Estimated number of cubic yards and type of material to be excavated;

005.10D Location where excavated material is to be deposited;

005.10E Type of equipment to be used to transport material;

005.10F Estimated time required for excavation and disposal procedure; and

005.10G Provisions for closing the excavated or disturbed area.

005.11 Closure Plan. Owners and operators of all permitted construction and demolition waste disposal areas shall prepare and submit a written closure plan that describes the steps necessary to close the construction and demolition waste disposal area at any point during the active life of the area in accordance with section 005.01 to 005.03 of this chapter. This closure plan shall be provided in the permit application. Any revisions shall be forwarded to the Department for approval. The closure plans shall include, but not be limited to, the following:

005.11A A description of the final cover designed including methods and procedures to install the final cover;

005.11B An estimate of the largest area of the construction and demolition waste disposal area ever requiring a final cover at any time during the active life of the construction and demolition waste disposal area;

005.11C An estimate of the maximum inventory of wastes ever on-site over the active life of the construction and demolition waste disposal area; and

005.11D A schedule for the completion of all activities necessary to satisfy the closure criteria.

006 Post-closure Criteria. The owners or operators of all construction and demolition waste disposal areas shall comply with post-closure rules and regulations for a period of five (5) years. The length of the post-closure period may be increased, if the Department determines that the lengthened period is necessary to protect human health and the environment. The length of the post-closure period may be reduced, if the Department determines that the reduced period is sufficient to protect human health and the environment.

006.01 Post-closure care shall include, at a minimum, the performance of each of the following activities:

006.01A Annual inspection and maintenance of the cover to ensure integrity and effectiveness, including making repairs to the cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;

006.01B Annual inspection and maintenance of any access control structures and posted signs; and

006.01C Maintenance and operation of any environmental control features which are included in the design and operation of the construction and demolition waste disposal area or required by the Department to protect human health and the environment.

006.02 Post-closure plan. Each permit application shall include a post-closure plan. Any revisions shall be forwarded to the Department for approval. The post-closure plan shall include, but not be limited to the following:

006.02A A description of the monitoring and maintenance activities required in section 006.01 for each construction and demolition waste disposal area and the frequency at which these activities will be performed;

006.02B Name, address, and telephone number of the person or office to contact about the closed construction and demolition waste disposal area during the post-closure period; and

006.02C A description of the planned uses of the property during the post-closure period and a description of the period of time during which access to the facility will be controlled. Post-closure use of the property shall not disturb the integrity of the final cover, or any other components of the containment system.

006.03 The owner or operator shall begin implementing the post-closure plan required in this section immediately after closure is completed and continue implementing the plan over the entire post-closure period.

007 Required Maps and Drawings. The permit application for a construction and demolition waste disposal area shall include the following maps and drawings, and shall be prepared by a professional engineer registered to practice in the State of Nebraska. When a structure described in 007.03 and 007.04 is not present at the site, a notation shall be made on the required map or drawing.

007.01 A topographic map or maps of the construction and demolition waste disposal area drawn to the scale of 200 feet to the inch or larger, containing 5-foot contour intervals where the relief exceeds 20 feet, and 2-foot contour intervals where the relief is 20 feet or less, and referred to a United States Geological Survey datum.

007.02 A topographic map indicating the proposed final contours and landscaping of completed solid waste disposal areas with a statement of the proposed final use of the site.

007.03 Maps of the site, drawn to scale, indicating the location or existence of the following items:

007.03A Points of entrance to and exit from the facility and to and from the operating area of the facility; devices for controlling unauthorized access to the facility site;

007.03B Loading, dumping and any temporary storage areas;

007.03C Interior roads and ramps;

007.03D Salvage operations;

007.03E Fill area;

007.03F Borrow areas;

007.03G Drainage facilities, structures, walls, cribbing, surface protection devices, and any other devices as are necessary to comply with applicable water quality standards; and

007.03H If present, the following: fire protection facilities, utilities to service the site, gas and oil wells, high tension power lines, and fuel transmission pipelines.

007.04 Maps of the area within one-quarter mile of the boundaries of the site, drawn to scale, showing the location of:

007.04A Waterways and surface drains;

007.04B Nearby surface waters;

007.04C Borings, wells, springs, and their surface elevations, and depths and elevations of water levels;

007.04D Field tile drains; and

007.04E Underground and surface mines, elevations of mine pools, and mine pool discharges.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2036; 81-1504 (1),(2),(7),(11)-(13),(20); 81-1505; 81-1528 (7)

Legal Citation: Title 132, Ch. 5, Nebraska Department of Environmental Quality

## **Chapter 6 - CRITERIA FOR SOLID WASTE PROCESSING FACILITIES**

001 Applicability. The requirements of this chapter apply to all solid waste transfer stations, materials recovery facilities, solid waste compost sites, and other solid waste processing facilities required to obtain a permit pursuant to Chapter 2, 001.

002 Locational criteria. New solid waste processing facilities and lateral expansions of existing solid waste processing facilities shall be located in accordance with the standards as described in this section. The application shall include documentation verifying that the solid waste processing facility complies with the following.

002.01 The application for a solid waste processing facility shall include a description of the:

002.01A Name of and distance to nearby surface waters; and

002.01B Land use and population density of the proposed facility and of the area surrounding the facility within one mile of the facility boundaries.

002.02 Wetlands. A new solid waste processing facility or lateral expansion shall not be located in wetlands.

002.03 The following locational criteria shall apply only to solid waste compost sites.

002.03A No person shall locate a solid waste compost site within one thousand (1,000) feet from the nearest edge of an existing right-of-way of any state, interstate or federal highway unless the active area is screened by natural objects, plantings, fences, or other appropriate means so as to not be visible from such highway.

002.03B Floodplains. A new solid waste compost site or a lateral expansion of these facilities, shall not be located in a 100-year flood plain.

002.03C A solid waste composting site shall not be located in an area where the Department finds that the solid waste activities will have a detrimental effect on the waters of the state based on the following criteria:

002.03C1 Current and projected use of water resources in the potential zone of influence of the site;

002.03C2 Ground water elevation and proposed separation between the lowest point of the lowest cell and the predicted maximum water table elevation;

002.03C3 Potential interrelationship of the local aquifers, and surface waters based on historical records or other sources of information; and

002.03C4 Background and initial quality of water resources in the potential zone of influence of the site.

002.03D The application shall also include a description of the:

002.03D1 Soil and bedrock to a depth adequate to allow evaluation of the water quality protection provided by the soil and bedrock;

002.03D2 Potential for leachate generation, and of pollution of the waters of the state; and

002.03D3 Ground water condition, including ground water flow below and adjacent to the proposed facility, with an appraisal of the effect of the facility on ground water and surface waters.

003 Design criteria. The construction and design of all solid waste processing facilities shall:

003.01 Be protective of human health and the environment;

003.02 Not result in pollution of the waters of the state; and

003.03 In the case of new or lateral expansions of existing solid waste processing facilities, the construction and design plans shall include the following documentation:

003.03A A description of the sequence of earth materials at the proposed facility to a depth sufficient to assure the reliability of the facility design;

003.03B A schedule of construction and a construction quality assurance plan;

003.03C Data obtained from soil samples taken from the proposed facility site which describe the soil classification, grain size distribution, permeability, compatibility, and ion-exchange properties of the subsurface materials for those strata which are essential to the design of the facility; and

003.03D If exploration holes are drilled to obtain data, information showing the manner of plugging and sealing such holes.

003.04 In the case of a solid waste compost site the construction and design plans shall also include the following:

003.04A Measures taken to protect the ground water;

003.04B A description of the system for collection, containment, treatment and/or use of all waters within the site confines, which shall include:

003.04B1 A monitoring program for surface run-off from the site shall be developed and implemented to determine the need and extent of containment facilities; or

003.04B2 A containment facility shall be designed to contain all site run-off from a twenty-four (24) hour twenty-five (25) year storm.

004 Operational criteria. Operations of all solid waste processing facilities shall be in accordance with the approved operational plan and Chapter 2 requirements.

004.01 A solid waste processing facility shall be designed and operated at all times so as to not constitute a hazard, or a threat to human health or the environment.

004.02 Litter shall be controlled at solid waste processing facilities.

004.03 Disease vector control. An owner or operator of a solid waste processing facility shall prevent or control on-site populations of disease vectors using techniques appropriate for the protection of human health and the environment.

004.04 Air Criteria. An owner or operator of a solid waste processing facility shall ensure that the facility does not violate any applicable requirements developed under Title 129 - Nebraska Air Quality Regulations.

004.05 Procedures for Excluding the Receipt of Hazardous Waste or TSCA Regulated PCB Wastes.

004.05A Owners or operators of a solid waste processing facility shall implement a program for detecting and preventing the acceptance or disposal of regulated hazardous wastes and TSCA regulated polychlorinated biphenyl (PCB) wastes. This program shall include, at a minimum:

004.05A1 Random inspections of incoming loads unless the owner or operator takes other steps to ensure that incoming loads do not contain regulated hazardous wastes or PCB wastes;

004.05A2 Records of any inspections;

004.05A3 Training of facility personnel to recognize regulated hazardous wastes and PCB wastes; and

004.05A4 Notification to the Department if a regulated hazardous waste or PCB waste is discovered at the facility.

004.05B Any hazardous or PCB waste identified must be removed and handled in accordance with procedures of the approved operating plan.

004.06 Access Requirements.

004.06A An owner or operator of a solid waste processing facility shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate, to protect human health and the environment.

004.06B Access roads to the site shall be maintained so as to be negotiable by vehicles.

004.06C Necessary measures shall be taken (supervision, placarding, fencing) to reduce trespassing.

004.06D Solid waste processing facilities shall be supervised to satisfy requirements of these rules and regulations; placarding or posting instructions shall be used as a supplement to on-site supervision.

004.06E Access to the site shall be permitted only during the hours when operating personnel are on the site.

004.06F All vehicular access points shall be equipped with gates that can be locked. Operating procedures shall be clearly listed on signs posted at the site entrance.

004.07 Surface Water Requirements. A solid waste processing facility shall not:

004.07A Cause a discharge of pollutants into waters of the state, including wetlands, that violate any requirements of Title 119 - Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System.

004.07B Cause the discharge of a non-point source of pollution to waters of the State that violate any requirement of an area-wide or state-wide water quality management plan that has been approved under section 208 or 319 of the Clean Water Act, as amended.

004.08 An owner or operator shall not accept solid waste at the facility if the storage capacity has been reached. Solid waste shall only be stored in areas designated for storage.

004.09 Modifications to facility equipment or operations shall be entered into the operating record.

004.10 Unloading of solid waste at a facility shall be confined to designated areas. Solid waste shall be confined to unloading, loading, and handling areas only.

004.11 The operational plan for a solid waste processing facility shall include a description of the methods of operations which comply with the requirements of 004.01 to 004.10. The operational plan shall also include:

004.11A A description of the days and hours of operations;

004.11B A description of the number and duties of employees;

004.11C A listing of sources and types of waste to be received; and an estimate of daily quantity of wastes to be received; origin of wastes to be received; and load inspection techniques;

004.11D Numbers, type and size of equipment on site as well as provisions for obtaining back up equipment, if necessary; and

004.11E A contingency plan for addressing reasonably foreseeable events including, but not be limited to, wet weather, high winds, frozen conditions, fires, or natural disaster.

004.12 Additional operational requirements to be included in the operational plan for solid waste compost sites shall include:

004.12A Methods of operation shall be described, including windrow, static pile or other, and added to the operational plan;

004.12B If necessary, chemical analysis of the materials to be composted or land applied;

004.12C Provisions for the disposal of waste which is not part of the compost material; and

004.12D If determined necessary by the Department, provisions for at least annual laboratory analysis of underlying soils for leachate detection.

005 Closure criteria. Owners or operators of a solid waste processing facility shall close in accordance with the approved closure plan.

005.01 The owner or operator of a solid waste processing facility shall prepare a written closure plan that describes the steps necessary to close the facility at any point during the active life of the facility. This closure plan and any revisions shall be placed in the operating record. The closure plans shall include, but are not limited to the following:

005.01A A description of the activities required to close the site in a manner protective of human health and the environment;

005.01B A description of the post-closure plans for the inactive site;

005.01C Methods or means for notifying facility users of the closure of the facility; and

005.01D A description of the location where all materials remaining at the site will be disposed, when applicable.

005.02 The owner or operator of a permitted solid waste processing facility shall notify the Department, in writing, at least 180 days prior to the date the owner or operator expects to begin closure. Such notice shall also be placed in the operating record.

005.03 The owner or operator of a solid waste processing facility area shall begin implementation of the closure plan required in 005.01 of this rule within thirty (30) days after the date on which the facility receives the final volume of waste. The owner or operator shall notify the Department, in writing, of the date of the receipt of the final volume of waste, the date of the initiation of closure, and completion of closure. Copies of these notices shall also be placed in the operating record.

005.04 The owner or operator of a solid waste processing facility shall complete closure activities in accordance with the closure plan within 180 days after the last receipt of waste. Extensions of the closure period may be granted by the Department if the owner or operator demonstrates that closure will, due to circumstances beyond the operator's control, take longer than 180 days and the owner or operator has taken, and will continue to take, all steps to

prevent threats to human health and the environment from the unclosed solid waste processing facility.

005.05 Owners or operators shall not implement modifications to the design or operation of a solid waste processing facility which results in modifications to the closure plan without prior approval of the Department.

006 Required Maps and Drawings. The permit application for a solid waste processing facility shall include the following maps. When a structure described in 006 is not present at the site, a notation shall be made on the required map or drawing.

006.01 Maps of the site, drawn to scale, indicating the location of:

006.01A Ground water monitoring wells and gas monitoring locations, if required;

006.01B Points of entrance to and exit from the facility and to and from the operating area of the facility;

006.01C Loading, dumping and any temporary storage areas;

006.01D Interior roads and ramps;

006.01E Devices for controlling litter;

006.01F Devices for controlling unauthorized access to the facility site;

006.01G Drainage facilities, structures, walls, cribbing, surface protection devices, and any other devices as are necessary to comply with applicable water quality standards;

006.01H Fire protection facilities;

006.01I Utilities to service the site;

006.01J Gas and oil wells;

006.01K High tension power lines; and

006.01L Fuel transmission pipelines.

006.02 Maps of the area within one-quarter mile of the boundaries of the site, drawn to scale, showing the location of:

006.02A Waterways and surface drains;

006.02B Borings, wells, springs, and their surface elevations, and depths and elevations of water levels;

006.02C Field tile drains; and

006.02D Underground and surface mines, elevations of mine pools, and mine pool discharges.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2036; 81-1504 (1), (2), (7), (11)-(13), (20); 181505; 81-1528 (7)

Legal Citation: Title 132, Ch. 6, Nebraska Department of Environmental Quality

## **Chapter 7 - GROUND WATER MONITORING AND REMEDIAL ACTION**

### **001** Applicability.

001.01 Except as provided in 001.02 and 001.03 of this chapter, the requirements of this chapter apply to all solid waste disposal areas accepting municipal solid waste and to delisted waste disposal areas. The effective date of this chapter is October 1, 1993. In the interim period, between the effective date of this Title, and October 1, 1993, ground water monitoring shall be conducted by owners and operators as required by the Department pursuant to the Nebraska Environmental Protection Act.

001.02 Fossil fuel combustion ash waste disposal areas, industrial waste disposal areas, solid waste compost sites requiring a permit, and land application units for repeated disposal or treatment of special waste which are permitted or expanded after the effective date of these regulations are required to submit to the Department a hydrogeologic characterization of the site. This characterization shall consist of at a minimum the following items:

001.02A Current and projected use of water resources in the potential zone of influence of the facility;

001.02B Aquifer thickness, ground water flow rate, ground water flow direction, including seasonal and temporal fluctuations in ground water flow; and

001.02C Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, including but not limited to:

001.02C1 Thickness, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

001.03 The Director may suspend the ground water monitoring requirements of sections 002 through 005 of this chapter if the owner or operator of a solid waste disposal area can demonstrate that there is no potential for migration of hazardous constituents from that disposal area to the uppermost aquifer during its active life and the post-closure period.

001.03A This demonstration shall be certified by a qualified ground water scientist and approved by the Department, and based upon the following:

001.03A1 Site-specific field collected measurements, sampling, and analysis of physical, chemical, and biological processes affecting contaminant fate and transport; and

001.03A2 Contaminant fate and transport predictions that maximize contaminant migration and consider impacts on human health and the environment.

001.04 Once established, ground water monitoring shall be conducted throughout the active life and post-closure care period of the solid waste disposal area as specified in these regulations.

001.05 For purposes of this chapter, "qualified ground water scientist" shall mean a scientist or an engineer who has received a baccalaureate or post-graduate degree in the physical sciences or engineering and has sufficient training and experience in ground water hydrology and related fields as demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional

judgments regarding ground water monitoring, contaminant fate and transport, and remedial action.

## 002 Ground Water Monitoring Systems.

002.01 An owner or operator shall install a ground water monitoring system that consists of a sufficient number of wells, installed at appropriate locations and depths, to yield ground water samples from the uppermost aquifer that:

002.01A Represent the quality of background ground water that has not been affected by leakage from an existing solid waste disposal area. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the solid waste disposal area where:

002.01A1 Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; or

002.01A2 Sampling at other wells will provide an indication of background ground water quality that is as representative or more representative than that provided by the upgradient wells; and

002.01B Represent the quality of the ground water passing the relevant point of compliance specified by the Department under 003.04D of Chapter 3 and 003.04D of Chapter 4.

002.01B1 The downgradient monitoring systems shall be installed at the relevant point of compliance specified by the Department under these regulations that ensures detection of ground water contamination in the uppermost aquifer.

002.01B2 When physical obstacles preclude installation of ground water monitoring wells at the relevant point of compliance at existing units, the downgradient monitoring systems may be installed at the closest practicable distance hydraulically downgradient from the relevant point of compliance specified by the Department under these regulations that ensures detection of ground water contamination in the uppermost aquifer.

002.02 A multi-unit ground water monitoring system (rather than separate ground water monitoring systems for each landfill unit) may be approved when the facility has several units, provided the multi-unit ground water monitoring system:

002.02A Meets the requirements of 002.01 of this chapter; and

002.02B Will be as protective of human health and the environment as individual ground water monitoring systems for each solid waste disposal area, based on the following factors:

002.02B1 Number, spacing, and orientation of the solid waste disposal area units;

002.02B2 Hydrogeologic setting;

002.02B3 Site history;

002.02B4 Engineering design of the solid waste disposal area;

002.02B5 Type of waste accepted at the solid waste disposal area.

002.03 Ground water monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well bore hole.

002.03A This casing shall be screened or perforated and packed with sand or gravel, where necessary, to enable collection of ground water samples.

002.03B The annular space (i.e., the space between the bore hole and well casing) above the sampling depth shall be sealed to prevent contamination of samples and the ground water.

002.03C An owner or operator shall notify the Department that the design, installation, development, and decommission of any monitoring wells, piezometers and any other measurement, sampling, and analytical devices documentation has been placed in the operating record.

002.03D The monitoring wells, piezometers, and other measurement, sampling, and analytical devices shall be operated and maintained so that they perform to design specifications throughout the life of the monitoring program.

002.04 The number, spacing, and depths of the monitoring systems shall be:

002.04A Determined based upon site-specific technical information that shall include thorough characterization of:

002.04A1 Aquifer thickness, ground water flow rate, ground water flow direction including seasonal and temporal fluctuations in ground water flow; and

002.04A2 Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including but not limited to:

002.04A2(a) Thickness, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.

002.04B Certified by a qualified ground water scientist and approved by Department.

002.04B1 An owner or operator shall notify the Department that this certification has been placed in the record within fourteen (14) days of the certification.

### 003 Ground Water Sampling and Analysis Requirements.

003.01 The ground water monitoring plan shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of ground water quality at the background and downgradient wells installed in compliance with 002 of this chapter.

003.01A An owner or operator shall notify the Department that the sampling and analysis plan has been placed in the operating record.

003.01B The plan shall include procedures and techniques for:

003.01B1 Sample collection;

003.01B2 Sample preservation and shipment;

003.01B3 Analytical procedures;

003.01B4 Chain of custody control; and

003.01B5 Quality assurance and quality control.

003.02 The ground water monitoring plan shall include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents and other monitoring parameters in ground water samples.

003.03 The sampling procedures and frequency shall be protective of human health and the environment.

003.04 Each time ground water is sampled, ground water elevations shall be measured in each well immediately prior to purging.

003.04A An owner or operator shall determine the rate and direction of ground water flow each time ground water is sampled.

003.04B Ground water elevations in wells which monitor the same solid waste disposal area must be measured within a period of time short enough to avoid temporal variations in ground water flow which could preclude accurate determination of ground water flow rate and direction.

003.05 An owner or operator shall establish background ground water quality in a hydraulically upgradient or background well(s) for each of the monitoring parameters of constituents required in the particular ground water monitoring program that applies to the solid waste disposal area, as determined by 004.01 or 005.01 of this chapter.

003.05A Background ground water quality may be established at wells that are not located hydraulically upgradient from the solid waste disposal area if they meet the requirements of 002.01A of this chapter.

003.06 The number of samples collected to establish ground water quality data shall be consistent with the appropriate statistical procedures determined pursuant to 003.07 of this chapter.

003.06A The sampling procedures shall be those specified under 004.02 of this chapter for detection monitoring, 005.02 and 005.04 of this chapter for assessment monitoring, and 006 of this chapter for remedial actions.

003.07 An owner or operator shall specify in the operating record one of the following statistical methods to be used in evaluating ground water monitoring data for each constituent. The statistical test chosen shall be conducted separately for each constituent in each well.

003.07A A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

003.07B An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination.

The method shall include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

003.07C A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

003.07D A control chart approach that gives control limits for each constituent.

003.07E Another statistical test method that meets the performance standards of 003.08 of this chapter.

003.07E1 An owner or operator shall place a justification for this alternative in the operating record and notify the Department of the use of this alternative test.

003.07E2 The justification shall demonstrate that the alternative method meets the performance standards of 003.08 of this chapter.

003.08 Any statistical method chosen under 003.07 of this chapter shall comply with the following performance standards, as appropriate:

003.08A The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents.

003.08A1 If the distribution of the chemical parameters of hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

003.08B If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period.

003.08B1 If a multiple comparisons procedure is used, the Type I experiment wise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained.

003.08B2 This performance standard does not apply to tolerance levels, prediction intervals, or control charts.

003.08C If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment.

003.08C1 The parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

003.08D If a tolerance interval or a prediction interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance levels, the percentage

of the population that the interval must contain, shall be protective of human health and the environment.

003.08D1 These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

003.08E The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment.

003.08E1 Any practical quantitation limit that is used in the statistical method shall be the lowest concentration level that can reliably be achieved within the specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

003.08F If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

003.09 An owner or operator shall determine whether there is a statistically significant increase over background values for each parameter or constituent required in the particular ground water monitoring program that applies to the solid waste disposal area, as determined under 004.01 of this chapter.

003.09A In determining whether a statistically significant increase has occurred, an owner or operator shall compare the ground water quality of each parameter or constituent at each monitoring well designated pursuant to 002.01B to the background value of that constituent, according to the statistical procedures and the performance standards specified in 003.07 and 003.08 of this chapter.

003.09B Within thirty (30) days of completing sampling and analysis, the owner or operator shall determine whether there has been a statistically significant increase over background at each monitoring well.

#### 004 Detection Monitoring Program.

004.01 Detection monitoring is required at all solid waste disposal areas mentioned in section 001. All ground water monitoring must occur pursuant to 002.01A and 002.01B of this chapter.

004.01A At a minimum, a detection monitoring program shall include the monitoring for the constituents listed in Appendix I, which is attached to these regulations and incorporated by this reference.

004.01B The Department may delete any of the monitoring parameters in Appendix I if an owner or operator of a solid waste disposal area can show that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

004.01C The Department may establish a list of indicator parameters for a solid waste disposal area, in lieu of some or all of the constituents in Appendix I, if the alternative parameters provide a reliable indication of releases from the solid waste disposal area to the ground water. In determining alternative parameters, the Department shall consider the following factors:

004.01C1 The types, quantities, and concentrations of constituents in wastes managed in the solid waste disposal area;

004.01C2 The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the solid waste disposal area;

004.01C3 The detectability of indicator parameters, waste constituents, and reaction products in the ground water; and

004.01C4 The concentration or values and coefficients of variation of monitoring parameters or constituents in the ground water background.

004.02 The monitoring frequency for all constituents listed in Appendix I to these regulations, or in the alternative list described in 004.01C of this chapter, shall be at least semiannual during the active life of the facility including closure and the post-closure period.

004.02A During the first semi-annual sampling event, a minimum of four (4) independent samples from each well (background and downgradient) shall be collected and analyzed for the Appendix I constituents or for the alternative list described in 004.01C of this chapter.

004.02B At least one (1) sample from each well (background and downgradient) shall be collected and analyzed during subsequent semi-annual sampling events.

004.02C Upon request by an owner or operator, the Department may specify an appropriate alternative frequency for repeated sampling and analysis for Appendix I constituents or for the alternative list described in 004.01C of this chapter.

004.02C1 This alternative frequency shall be no less than annual.

004.02C2 The alternative frequency shall be based on the consideration of the following factors:

004.02C2(a) Lithology of the aquifer and unsaturated zone;

004.02C2(b) Hydraulic conductivity of the aquifer and unsaturated zone;

004.02C2(c) Ground water flow rates;

004.02C2(d) Minimum distance between upgradient edge of the solid waste disposal area and downgradient monitoring well screen (minimum distance of travel); and

004.02C2(e) Resource value of the aquifer.

004.03 If an owner or operator determines, pursuant to 003.07 of this chapter, that there is a statistically significant increase over background for one or more of the constituents listed in Appendix I or in the list described in 004.01C of this chapter, at any monitoring well at the boundary specified under 002.01B of this chapter, an owner or operator:

004.03A Shall, within fourteen (14) days of this finding, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels, and notify the Department that this notice was placed in the operating record;

004.03B Shall, within ninety (90) days (except as provided for in 004.03C of this chapter), establish an assessment monitoring program meeting the requirements of 005 of this chapter; and

004.03C May demonstrate that a source other than the solid waste disposal area caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality.

004.03C1 A report documenting this demonstration shall be certified by a qualified ground water scientist and approved by the Department and be placed in the operating record.

004.03C2 If a successful demonstration is made and documented, the owner or operator may continue detection monitoring as specified in this chapter.

004.03C3 If, after ninety (90) days, a successful demonstration is not made, an owner or operator shall initiate an assessment monitoring program as required by 005 of this chapter.

#### 005 Assessment Monitoring Program.

005.01 Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in Appendix I or in the alternative list described in 004.01C of this chapter.

005.02 Within ninety (90) days of triggering an assessment monitoring program, and annually thereafter, an owner or operator shall sample and analyze the ground water for all constituents identified in Appendix II, which is attached to these regulations and incorporated herein by this reference.

005.02A A minimum of one sample from each downgradient well shall be collected and analyzed during each sampling event.

005.02B For any constituent detected in the downgradient wells as a result of the complete Appendix II analysis, a minimum of four (4) independent samples must be collected and analyzed to establish background for the constituents.

005.02C The Department may specify an appropriate subset of wells to be sampled and analyzed for Appendix II constituents during assessment monitoring.

005.02D The Department may delete any of the Appendix II monitoring parameters if an owner or operator can show that the removed constituents are not reasonably expected to be in or derived from the waste contained in the solid waste disposal area.

005.03 Upon request by an owner or operator, the Department may specify an appropriate alternative frequency for repeated sampling and analysis for the full set of Appendix II constituents required by 005.02 of this chapter during the active life including closure and post-closure care of the solid waste disposal area based on a consideration of the following factors:

005.03A Lithology of the aquifer and unsaturated zone;

005.03B Hydraulic conductivity of the aquifer and unsaturated zone;

005.03C Ground water flow rates;

005.03D Minimum distance between upgradient edge of the solid waste disposal area and downgradient monitoring well screen (minimum distance of travel);

005.03E Resource value of the aquifer; and

005.03F Nature (fate and transport) of any constituents detected in response to this chapter.

005.04 After obtaining the results from the initial or subsequent sampling events required in 005.02 of this chapter, an owner or operator shall:

005.04A Within fourteen (14) days, place a notice in the operating record identifying the Appendix II constituents that have been detected and notify the Department that this notice has been placed in the operating record;

005.04B Within ninety (90) days, and on at least a semiannual basis thereafter, resample all wells specified by 002.01 of this chapter; and conduct analyses for all constituents in Appendix I or in the alternative list in 004.01C, and for those constituents in Appendix II that are detected in response to 005.02 of this chapter, and record their concentrations in the facility's operating record.

005.04B1 At least one sample from each well (background and downgradient) shall be collected and analyzed during these sampling events.

005.04B2 Upon request by an owner or operator, the Department may specify an alternative monitoring frequency during the active life including closure and the post-closure period for the constituents referred to in 005.04B.

005.04B2(a) The alternative frequency for Appendix I constituents or the alternative list shall be no less than annual during the active life including closure.

005.04B2(b) The alternative frequency shall be based on consideration of the factors specified in 005.03 of this chapter.

005.04C Establish background concentrations for any constituents detected pursuant to 005.02 or 005.04B of this chapter; and

005.04D Establish ground water protection standards for all constituents detected pursuant to 005.02 or 005.04 of this chapter.

005.04D1 The ground water protection standards shall be established in accordance with 005.08 or 005.09 of this chapter.

005.05 If the concentrations of all Appendix II constituents are shown to be at or below background values, using the statistical procedures in 003.07, for two (2) consecutive sampling events, an owner or operator shall notify the Department of this finding and may return to detection monitoring.

005.06 If the concentrations of all Appendix II constituents are above background values, but all concentrations are below the ground water protection standards established under 005.08 or 005.09 of this chapter, using the statistical procedures in 003.07, an owner or operator shall continue assessment monitoring in accordance with this chapter.

005.07 If one or more Appendix II constituents are detected at statistically significant levels above the ground water protection standards established under 005.08 or 005.09 of this chapter in any sampling event, an owner or operator

005.07A Shall, within fourteen (14) days of this finding, place a notice in the operating record identifying the Appendix II constituents that have exceeded the ground water protection standard and notify the Department and all appropriate local government officials that the notice has been placed in the operating record;

005.07B Shall characterize the nature and extent of the release by installing additional monitoring wells as necessary;

005.07C Shall install at least one (1) additional monitoring well at the facility boundary in the direction of the contaminant migration and sample this well in accordance with 005.04B of this chapter;

005.07D Shall notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated off-site if indicated by sampling of wells in accordance with 005.07B;

005.07E Shall initiate an assessment of remedial measures as required by 006 of this chapter within ninety (90) days; and

005.07F May demonstrate that a source other than the solid waste disposal area caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality.

005.07F1 A report documenting this demonstration shall be certified by a qualified ground water scientist and approved by the Department and be placed in the operating record.

005.07F2 If a successful demonstration is made and documented, the owner or operator shall continue monitoring pursuant to 005 of this chapter, and may return to detection monitoring if the Appendix II constituents are at or below background as specified in 005.05.

005.07F3 Until a successful demonstration is made, an owner or operator shall comply with the requirements of 005.07 of this chapter, including initiating an assessment of remedial measures.

005.08 An owner or operator shall establish a ground water protection standard for each Appendix II constituent detected in the ground water. The ground water protection standard shall be:

005.08A For constituents for which a maximum contaminant level (MCL) has been promulgated under section 1412 of the Safe Drinking Water Act, codified under 40 C.F.R. section 141, the MCL for that constituent;

005.08B For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells in accordance with 002.01A; or

005.08C For constituents for which the background level is higher than the MCL identified under 005.08B of this chapter or health based levels identified under 005.09A, the background concentration.

005.09 The Department may establish an alternative ground water protection standard for constituents for which MCLs have not been established. These ground water protection standards shall be appropriate health based levels that satisfy the following criteria:

005.09A The level is derived in a manner consistent with EPA guidelines for assessing the health risks of environmental pollutants (51 Fed. R. 33992, 34006, 34014, 34028, Sept. 24, 1986);

005.09B The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act, Good Laboratory Practice Standards (40 C.F.R. sec. 792), or the equivalent;

005.09C For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) with the  $1 \times 10^{-4}$  to  $1 \times 10^{-6}$  range; and

005.09D For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime.

005.09D1 For purposes of 005.09D, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.

005.10 In establishing ground water protection standards under 005.09 of this chapter, the Department may consider the following:

005.10A Multiple contaminants in the ground water;

005.10B Exposure threats to sensitive environmental receptors; and

005.10C Other site-specific exposure or potential exposure to ground water.

#### 006 Assessment of Remedial Measures.

006.01 If a constituent listed in Appendix II is detected at a statistically significant level exceeding the ground water protection standards defined in 005.08 and 005.09 of this chapter, the owner or operator shall begin remedial action in accordance with Title 118 - Ground Water Quality Standards and Use Classification.

006.02 An owner or operator shall continue to monitor in accordance with the monitoring program specified in 005 of this chapter.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 81-1504; 81-1505

Legal Citation: Title 132, Ch. 7, Nebraska Department of Environmental Quality

### **Chapter 8 - FINANCIAL ASSURANCE CRITERIA: SOLID WASTE MANAGEMENT FACILITIES**

001 The requirements of this chapter are effective April 9, 1996, and are applicable to the owners or operators of all permitted solid waste management facilities except as provided in Sections 001.01 and 001.02 below.

001.01 The requirements of this chapter do not apply to owners or operators who are State or Federal government entities whose debts and liabilities are the debts and liabilities of a State or the United States.

001.02 No county, municipality, or agency shall be required to provide proof of financial responsibility to obtain or renew a permit for a solid waste processing facility.

002 Closure cost estimate. The owner or operator of a solid waste disposal area must have a detailed written estimate, in current dollars, of the cost of hiring a third party to close the largest area of the solid waste disposal area requiring a final cover as required in these regulations at any time during the active life in accordance with the closure plan. The owner or operator must notify the Department that the estimate has been placed in the operating record.

002.01 The cost estimate must equal the cost of closing the largest area of a solid waste disposal area requiring a final cover at any time during the active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan.

002.02 During the active life of a solid waste disposal area, the owner or operator must annually adjust the closure cost estimate for inflation.

002.03 The owner or operator must increase the closure cost estimate and the amount of financial assurance provided under 004 of this chapter if changes to the closure plan or solid waste disposal area conditions increase the maximum cost of closure at any time during the remaining active life.

002.04 The owner or operator may reduce the closure cost estimate and the amount of financial assurance provided under 004 of this chapter if the cost estimate exceeds the maximum cost of closure at any time during the remaining life of the solid waste disposal area. The owner or operator must notify the Department that the justification for the reduction of the closure cost estimate and the amount of financial assurance has been placed in the operating record.

003 The owner or operator of a solid waste processing facility requiring a permit, shall have a detailed written estimate, in current dollars, of the cost of hiring a third party to close the facility and properly dispose of all materials or wastes left at the site. This estimate shall be updated at the time of permit renewal, and shall include the cost of disposing of the most accumulated waste or materials that would ever be stored at the facility any one time.

004 Establishing financial assurance for closure. The owner or operator of each solid waste management facility must establish financial assurance for closure of the facility in compliance with 009. The owner or operator must provide continuous coverage for closure until released from financial assurance requirements.

004.01 The Department will inspect a permitted solid waste management facility when notified by the owner or operator that the closure plan has been implemented and in the case of a solid waste disposal area, compliance with the deed notation and closure certification by a professional engineer as required in these regulations, has been demonstrated. If the inspection reveals that the approved closure plan has been properly effected, the Department shall authorize the release of the financial assurance requirement for closure of that solid waste management facility.

005 Post-closure cost estimate. The owner or operator of a solid waste disposal area must have a detailed written estimate, in current dollars, of the cost of hiring a third party to conduct post-closure care for the solid waste disposal area in compliance with the post-closure plan. The post-closure cost estimate used to demonstrate financial assurance in 006 of this chapter must account for the total costs of conducting post-closure care, including annual and periodic costs as described in the post-closure plan over the entire post-closure care period. The owner or operator must notify the Department that the estimate has been placed in the operating record.

005.01 The cost estimate for post-closure care must be based on the most expensive costs of post-closure care during the post-closure care period.

005.02 During the active life of a solid waste disposal area and during the post-closure care period, the owner or operator must annually adjust the post-closure cost estimate for inflation.

005.03 The owner or operator must increase the post-closure care cost estimate and the amount of financial assurance provided under 006 of this chapter if changes to the post-closure plan or solid waste disposal area conditions increase the maximum cost of post-closure care.

005.04 The owner or operator may reduce the post-closure cost estimate and the amount of financial assurance provided under 006 of this chapter if the cost estimate exceeds the maximum costs of post-closure care remaining over the post-closure care period. The owner or operator must notify the Department that the justification for the reduction of the post-closure cost estimate and the amount of financial assurance has been placed in the operating record.

006 Establishing financial assurance for post-closure. The owner or operator of each solid waste disposal area must establish, in a manner in accordance with 009, financial assurance for the costs of post-closure care as required under these regulations. The owner or operator must provide continuous coverage for post-closure care until released from financial assurance requirements for post-closure care.

006.01 Within one year of the end of the designated post-closure care period, the Department will make an inspection of a solid waste disposal area to determine if the approved post-closure plan has been properly implemented. If the inspection reveals that the post-closure plan has been properly implemented, the remaining amount of the financial assurance mechanism will be released. If the inspection reveals that the post-closure plan has not been properly implemented, the Department may retain all or part of the remaining financial assurance instrument or require an extension of the post-closure period.

007 Remedial action program cost estimate. An owner or operator of a solid waste disposal area required to undertake a remedial action program under Chapter 7, Section 006 must have a detailed written cost estimate, in current dollars, of the cost of hiring a third party to perform the remedial action in accordance with the program required under Chapter 7, Section 006. The remedial action cost estimate must account for the total costs of remedial action activities as described in the workplan for the entire remedial action period. The owner or operator must notify the Department that the estimate has been placed in the operating record.

007.01 The owner or operator must annually adjust the estimate for inflation until the remedial action program is completed as determined by the Department.

007.02 The owner or operator must increase the remedial action cost estimate and the amount of financial assurance provided under 008 of this chapter if changes in the remedial action program, or the solid waste disposal area conditions increase the maximum costs of the remedial action.

007.03 The owner or operator may reduce the amount of the remedial action cost estimate and the amount of financial assurance provided under 008 of this chapter if the cost estimate exceeds the maximum remaining costs of the remedial action. The owner or operator must notify the Department that the justification for the reduction of the remedial action cost estimate and the amount of financial assurance has been placed in the operating record.

008 Establishing financial assurance for remedial action program. The owner or operator of each solid waste disposal area required to undertake a remedial action program under Chapter 7, Section 006 must establish, in a manner in accordance with 009, financial assurance for the most recent remedial action program. The owner or operator must provide continuous coverage for remedial action until the remedial action program is completed as determined by the Department.

009 Allowable mechanisms. Allowable mechanisms used to demonstrate financial assurance under Sections 010 to 018 must ensure that the funds necessary to meet the costs of closure, post-closure care, and remedial action for known releases will be available whenever they are needed. Any mechanism under Sections 010, 011, 012 and, where applicable, 018 shall be made payable to or held in trust for the benefit of the State and shall be approved by the Department. Owners and operators must choose from the options specified in 010 to 018 of this chapter.

#### 010 Trust Fund.

010.01 An owner or operator may satisfy the requirements of this chapter by establishing a trust fund which conforms to the requirements of this section. The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State Agency. The owner or operator must provide the Department with an originally signed duplicate of the trust agreement that has been placed in the operating record.

010.02 Payments into the trust fund must be made annually by the owner or operator over the estimated life or over the remaining life of the solid waste disposal area, whichever is shorter, in the case of a trust fund for closure or post-closure care, or over one-half of the estimated length of the remedial action program in the case of remedial action for known releases. This period is referred to as the "pay-in period".

010.03 For a trust fund used to demonstrate financial assurance for closure and post-closure care, the first payment into the fund must be at least equal to the current cost estimate for closure or post-closure care, divided by the number of years in the pay-in period as defined in Section 010.02 of this chapter. The amount of subsequent payments must be determined by the following formula:

$$\frac{CE - CV}{\text{Next Payment} = Y}$$

where CE is the current cost estimate for closure or post-closure care (updated for inflation or other changes), CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

010.04 For a trust fund used to demonstrate financial assurance for remedial action, the first payment into the fund must be at least equal to one-half of the current cost estimate for remedial action, divided by the number of years in the remedial action pay-in period as defined in Section 010.02 of this chapter. The amount of subsequent payments must be determined by the following formula:

RB - CV

Next Payment = Y

where RB is the most recent estimate of the required trust fund balance for remedial action (i.e., the total costs that will be incurred during the second half of the remedial action period), CV is the current value of the trust fund, and Y is the number of years remaining in the pay-in period.

010.05 The initial payment into the trust fund must be made before the initial receipt of waste in the case of closure or post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department.

010.06 If the owner or operator establishes a trust fund after having used one or more alternate mechanisms specified in this chapter, the initial payment into the trust fund must be at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to the specifications of Section 010, as applicable.

010.07 The owner or operator or other person authorized to conduct closure, post-closure care, or remedial action activities may request reimbursement from the trustee for these expenditures. Requests for reimbursement will be granted by the trustee only if the Department determines sufficient funds are remaining in the trust fund to cover the remaining costs of closure, post-closure care, or remedial action, and if justification and documentation of the cost is placed in the operating record. The owner or operator must notify the Department that the documentation of the justification for reimbursement has been placed in the operating record and that reimbursement has been received.

010.08 The trust fund may be terminated by the owner or operator only if the owner or operator substitutes alternate financial assurance as specified in this chapter or if the owner or operator is no longer required to demonstrate financial responsibility in accordance with the requirements of Sections 004, 006, and 008.

010.09 Discounting. If the owner or operator establishes a trust fund, the Department may allow discounting of closure cost estimates in Section 003, post-closure cost estimates in Section 005, and/or remedial action costs in Section 007 up to a rate of return for essentially risk free investments, net of inflation, under the following conditions:

010.09A The Department determines that the cost estimates are complete and accurate and the owner or operator has submitted a statement from a registered professional engineer so stating;

010.09B The Department finds the facility in compliance with applicable and

appropriate permit conditions;

010.09C The Department determines that the closure date is certain and the owner or operator certifies that there are no foreseeable factors that will change the estimate of site life; and

010.09D Discounted cost estimates must be adjusted annually to reflect inflation and years of remaining facility life.

## 011 Surety Bond Guaranteeing Payment or Performance.

011.01 The owner or operator may demonstrate financial assurance for closure or post-closure care by obtaining a payment or performance surety bond which conforms to the requirements of this section. An owner or operator may demonstrate financial assurance for remedial action by obtaining a performance bond which conforms to the requirements of this section. The bond must be effective before the initial receipt of waste in the case of a closure or post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department. The surety company issuing the bond must be approved by the Department. The owner or operator must provide the Department with an originally signed duplicate of the bond that has been placed in the operating record.

011.02 The penal sum of the bond must be in an amount at least equal to the current closure, post-closure care or remedial action cost estimate, whichever is applicable, except as provided in Section 019.

011.03 Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

011.04 Payments made under the terms of the bond will be paid by the surety directly to the Department.

011.05 Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner and operator and to the Department one-hundred and twenty (120) days in advance of cancellation. If the surety cancels the bond, the owner or operator must obtain alternate financial assurance as specified in this chapter.

011.06 If the owner or operator fails to establish alternate financial assurance, as specified in this chapter, within 90 days after the Department receives a notice of cancellation, the Director will notify the surety of the failure of the owner or operator to perform as guaranteed by the bond.

011.07 The owner or operator may cancel the bond only if alternate financial assurance is substituted as specified in this chapter or if the owner or operator is no longer required to demonstrate financial responsibility in accordance with the requirements of Sections 004, 006, and 008.

## 012 Letter of Credit.

012.01 An owner or operator may satisfy the requirements of this chapter by obtaining an irrevocable standby letter of credit which conforms to the requirements of this section. The

letter of credit must be effective before the initial receipt of waste in the case of closure and post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department. The owner or operator must provide the Department with an originally signed duplicate of the letter of credit that has been placed in the operating record. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a Federal or State Agency.

012.02 A letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: Name and address of the facility, and the amount of funds assured, must be included with the letter of credit in the operating record.

012.03 The letter of credit must be irrevocable and issued for a period of at least one year in an amount at least equal to the current cost estimate for closure, post-closure care, or remedial action, whichever is applicable, except as provided in 010. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless the issuing institution has canceled the letter of credit by sending notice of cancellation by certified mail to the owner and operator and to the Department 120 days in advance of cancellation. If the letter of credit is canceled by the issuing institution, the owner or operator must obtain alternate financial assurance.

012.04 If the owner or operator fails to establish alternate financial assurance, as specified in this chapter, within 90 days after the Department receives a notice of cancellation, the Director will draw on the letter of credit. The requirements of this subsection are effective January 1, 2001.

012.05 The owner or operator may cancel the letter of credit only if alternate financial assurance is substituted as specified in this chapter or if the owner or operator is released from the requirements of Sections 004, 006 or 008.

### 013 Insurance.

013.01 An owner or operator may demonstrate financial assurance for closure and post-closure care by obtaining insurance which conforms to the requirements of this section. The insurance must be effective before the initial receipt of waste. At a minimum, the insurer must be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States. The owner or operator must provide the Department with an originally signed duplicate of the insurance policy that has been placed in the operating record.

013.01A An owner or operator using insurance as a financial assurance mechanism must disclose whether the insurer is a subsidiary or has a corporate, legal or financial affiliation with the owner or operator.

013.01A1 An owner or operator using insurance issued by a subsidiary or affiliate must provide a detailed description of the relationship between the owner or operator and insurer, and must demonstrate the owner or operator can satisfy the financial test criteria in Section 014.01.

013.01B An insurer issuing an insurance policy for a parent company or affiliate, or for a group of companies in the same industry, must meet the following qualifications:

013.01B1 The most recent A.M.Best rating must be at least A- (minus);

013.01B2 The insurer must be domiciled in the United States;

013.01B3 The most recent Report on Examination from the State Insurance Department from the insurer's State of Domicile must be satisfactory;

013.01B4 The insurer must have capital and surplus of at least \$100,000,000; and

013.01B5 The insurer must receive an unqualified opinion of their annual financial statements from an independent certified public accountant, with the potential exception for qualified opinions as follows. The Department may evaluate qualified opinions on a case-by-case basis and allow use of the insurer in cases where the Department determines the matters which form the basis for the qualification are insufficient to warrant disqualification of the insurer.

013.02 The closure or post-closure care insurance policy must guarantee that funds will be available to close the solid waste management facility whenever final closure occurs or to provide post-closure care for the solid waste management facility whenever the post-closure care period begins, whichever is applicable. If the owner or operator fails to properly implement the closure or post-closure plan, the insurer will be responsible for the paying out of funds to the owner or operator or other person authorized to conduct closure or post-closure care, up to an amount equal to the face amount of the policy.

013.03 The insurance policy must be issued for a face amount at least equal to the current cost estimate for closure or post-closure care, whichever is applicable, except as provided in Section 019. The term face amount means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

013.04 An owner or operator, or any other person authorized to conduct closure or post-closure care, may receive reimbursement for closure or post-closure expenditures, whichever is applicable. Requests for reimbursements will be granted by the insurer only if the remaining value of the policy is sufficient to cover the remaining costs of closure or post-closure care, and if justification and documentation of the cost is placed in the operating record. The owner or operator must notify the Department that the documentation of justification for reimbursement has been placed in the operating record and that reimbursement has been received.

013.05 Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided that such consent is not unreasonably refused.

013.06 The insurance policy must provide that the insurer may not cancel, terminate or fail to renew the policy except for the failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may cancel the policy by sending notice of cancellation by certified mail to the owner and operator and to the Department 120 days in advance of cancellation. If the insurer cancels the policy, the owner or operator must obtain alternate financial assurance as specified in this chapter.

013.07 For insurance policies providing coverage for the post-closure care, commencing on the date that liability to make payments pursuant to the policy accrues, the insurer will thereafter annually increase the face amount of the policy. Such increase must be equivalent to the face amount of the policy, less any payments made, multiplied by an amount equivalent to eighty-five percent (85%) of the most recent investment rate or the equivalent coupon-issue yield announced by the U.S. Treasury for 26-week Treasury securities.

013.08 The owner or operator may cancel the insurance policy only if alternate financial assurance is substituted as specified in this chapter, or if the owner or operator is no longer required to demonstrate financial responsibility, in accordance with the requirements of Sections 004 or 006.

014 Corporate Financial Test. An owner or operator that satisfies the requirements of this section may demonstrate financial assurance up to the amount specified in this section:

014.01 Financial Component.

014.01A The owner or operator must satisfy one of the following three conditions:

014.01A1 A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa, as issued by Moody's; or

014.01A2 A ratio of less than 1.5 comparing total liabilities to net worth; or

014.01A3 A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

014.01B The tangible net worth of the owner or operator must be greater than:

014.01B1 The sum of the current closure, post-closure care, remedial action cost estimates and any other environmental obligations, including guarantees, covered by a financial test plus \$10 million except as provided in Section 014.01B2.

014.01B2 \$10 million in net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements provided all of the current closure, post-closure care, and remedial action costs and any other environmental obligations covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the Department.

014.01C The owner or operator must have assets located in the United States amounting to at least the sum of current closure, post-closure care, remedial action cost estimates and any other environmental obligations covered by a financial test as described in Section 014.03.

014.02 Recordkeeping and Reporting Requirements.

014.02A The owner or operator must place the following items into the facility's operating record:

014.02A1 A letter signed by the owner's or operator's chief financial officer that:

014.02A1(a) Lists all current cost estimates covered by a financial test, including, but not limited to, cost estimates required for municipal solid waste management facilities under this chapter, cost estimates required for underground injection control facilities, if applicable, cost estimates required for petroleum underground storage tank facilities, if applicable, cost estimated required for PCB storage facilities, if applicable, and cost estimates required for hazardous waste treatment, storage and disposal facilities, if applicable; and

014.02A1(b) Provides evidence demonstrating that the firm meets the conditions of either Section 014.01A1 or 014.01A2 or 014.01A3 and Section 014.01B and 014.01C.

014.02A2 A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Department may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Department deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Department does not allow use of the test, the owner or operator must provide alternate financial assurance that meets the requirement of this chapter.

014.02A3 If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that owner or operator satisfies Sections 014.01A2 and 014.01A3 that are different from data in the audited financial statements referred to in Section 014.02A2 or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

014.02A4 If the chief financial officer's letter provides a demonstration that the

firm has assured for environmental obligations as provided in Section 014.01B2, then the letter shall include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least \$10 million plus the amount of any guarantees provided.

014.02B An owner or operator must place the items specified in Section 014.02A in the operating record and notify the Department that these items have been placed in the operating record before the initial receipt of waste in the case of closure, and post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department.

014.02C After the initial placement of items specified in Section 014.02A in the operating record, the owner or operator must annually update the information and place updated information in the operating record within 90 days following the close of the owner or operator's fiscal year. The Department may provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in Section 014.02A.

014.02D The owner or operator is no longer required to submit the items specified in Section 014.02 or comply with the requirements of this section when:

014.02D1 The owner or operator substitutes alternate financial assurance as specified in this chapter that is not subject to these recordkeeping and reporting requirements: or

014.02D2 The owner or operator is released from the requirements of this chapter in accordance with Sections 004, 006 and 008.

014.02E If the owner or operator no longer meets the requirements of Section 014.01, the owner or operator must, within 120 days following the close of the owner or operator's fiscal year, obtain alternative financial assurance that meets the requirements of this chapter, place the required submissions for that assurance in the operating record, and notify the Department that the owner or operator no longer meets the criteria of the financial test and that alternate assurance has been obtained.

014.02F The Department may, based on a reasonable belief that the owner or operator may no longer meet the requirements of Section 014.01, require at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in Section 014.02. If the Department finds that the owner or operator no longer meets the requirements of Section 014.01, the owner or operator must provide alternate financial assurance that meets the requirements of this chapter.

014.03 Calculations of Costs to be Assured. When calculating the current cost estimates for closure, post-closure care, remedial action, or the sum of the combination of such costs to be covered, and any other environmental obligations assured by a financial test referred to in this section, the owner or operator must include cost estimates required for municipal solid waste management facilities under this part, as well as cost estimates required for the following environmental obligations, if it assures them through a financial test: obligations associated with underground injection control facilities, petroleum underground storage tank facilities, PCB storage facilities, and hazardous waste treatment, storage and disposal facilities.

015 Local Government Financial Test. An owner or operator that satisfies the requirements of Sections 015.01 through 015.03 may demonstrate financial assurance up to the amount specified in Section 015.04:

015.01 Financial component.

015.01A The owner or operator must satisfy Section 015.01A1 or 015.01A2 as applicable:

015.01A1 If the owner or operator has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, it must have a current rating of Aaa, Aa, A or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard and Poor's on all such general obligation bonds; or

015.01A2 The owner or operator must satisfy each of the following financial ratios based on the owner or operator's most recent audited annual financial statement:

015.01A2(a) A ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05; and

015.01A2(b) A ratio of annual debt service to total expenditures less than or equal to 0.20.

015.01B The owner or operator must prepare its financial statements in conformity with Generally Accepted Accounting Principles for governments and have its financial statements audited by an independent certified public accountant (or appropriate State agency).

015.01C A local government is not eligible to assure its obligations under this section if it:

015.01C1 Is currently in default on any outstanding general obligation bonds; or

015.01C2 Has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's; or

015.01C3 Operated at a deficit equal to five percent (5%) or more of total

annual revenue in each of the past two (2) fiscal years; or

015.01C4 Receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant (or appropriate State agency) auditing its financial statement as required under Section 015.01B. However, the Director may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Director deems the qualification insufficient to warrant disallowance of use of the test.

015.01D The following terms used in this section are defined as follows:

015.01D1 “Deficit” equals total annual revenues minus total annual expenditures;

015.01D2 “Total Revenues” include revenues from all taxes and fees but does not include the proceeds from borrowing or asset sales, excluding revenue from funds managed by local government on behalf of a specific third party;

015.01D3 “Total Expenditures” include all expenditures excluding capital outlays and debt repayment;

015.01D4 “Cash Plus Marketable Securities” is all the cash plus marketable securities held by the local government on the last day of the fiscal year, excluding cash and marketable securities designated to satisfy past obligations such as pensions: and

015.01D5 “Debt Service” is the amount of principal and interest due on a loan in a given time period, typically the current year.

15.020 Public notice component. The local government owner or operator must place a reference to the closure and post-closure care costs assured through the financial test into its next comprehensive annual financial report (CAFR) after the effective date of this section or prior to the initial receipt of waste at the facility, whichever is later. Disclosure must include the nature and source of closure and post-closure care requirements, the reported liability at the balance sheet date, the estimated total closure and post-closure care cost remaining to be recognized, the percentage of landfill capacity used to date, and the estimated landfill life in years. A reference to remedial action costs must be placed in the CAFR not later than 120 days after the remedial action workplan has been approved by the Department. For the first year the financial test is used to assure costs at a particular facility, the reference may instead be placed in the operating record until issuance of the next available CAFR if timing does not permit the reference to be incorporated into the most recently issued CAFR or budget. For closure and post-closure costs, conformance with Government Accounting Standards Board Statement 18 assures compliance with this public notice component.

015.03 Recordkeeping and Reporting Requirements.

015.03A The local government owner or operator must place the following items in the facility’s operating record:

015.03A1 A letter signed by the local government's chief financial officer that:

015.03A1(a) Lists all the current cost estimates covered by a financial test, as described in Section 015.04;

015.03A1(b) Provides evidence and certifies that the local government meets the conditions of Sections 015.01A, 015.01B and 015.01C; and

015.03A1(c) Certifies that the local government meets the conditions of Sections 015.02 and 015.04.

015.03A2 The local government's independently audited year-end financial statements for the latest fiscal year, including the unqualified opinion of the auditor who must be an independent, certified public accountant or an appropriate State agency that conducts equivalent comprehensive audits;

015.03A3 A report to the local government from the local government's independent, certified public accountant (CPA) or an appropriate State agency based on performing an agreed upon procedures engagement relative to the financial ratios required by Section 015.01A2, if applicable, and the requirements of Sections 015.01B, 015.01C3 and 015.01C4. The CPA or State agency's report should state the procedures performed and the CPA or State agency's finding; and

015.03A4 A copy of the comprehensive annual financial report (CAFR) used to comply with Section 015.02 or certification that the requirements of General Accounting Standards Board Statement 18 have been met.

015.03B The items required in Section 015.03A must be placed in the facility operating record as follows:

015.03B1 In the case of closure and post-closure care, prior to the initial receipt of waste at the facility, or

015.03B2 In the case of remedial action, not later than 120 days after the remedial action workplan has been approved by the Department.

015.03C After the initial placement of the items in the facility's operating record, the local government owner or operator must update the information and place the updated information in the operating record within 180 days following the close of the owner or operator's fiscal year.

015.03D The local government owner or operator is no longer required to meet the requirement of Section 015.03 when:

015.03D1 The owner or operator substitutes alternate financial assurance as specified in this chapter; or

015.03D2 The owner or operator is released from the requirements of this chapter in accordance with Sections 004, 006, and 008.

015.03E A local government must satisfy the requirements of the financial test at the close of each fiscal year. If the local government owner or operator no longer meets the requirements of the local government financial test it must, within 210 days following the close of the owner or operator's fiscal year, obtain alternative financial assurance that meets the requirement of this chapter, place the required submissions for that assurance in the operating record, and notify the Department that the owner or operator no longer meets the criteria of the financial test and that alternate assurance has been obtained.

015.03F The Department, based on a reasonable belief that the local government owner or operator may no longer meet the requirements of the local government financial test, may require additional reports of financial condition from the local government at any time. If Department finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of the local government financial test, the local government must provide alternate financial assurance in accordance with this chapter.

015.04 Calculation of Costs to be Assured. The portion of the closure, post-closure and remedial actions costs for which an owner or operator can assure under this section is determined as follows:

015.04A If the local government owner or operator does not assure other environmental obligations through a financial test, it may assure closure, post-closure, and remedial action costs that equal up to forty-three percent (43%) of the local government's total annual revenue.

015.04B If the local government assures other environmental obligations through a financial test, including those associated with underground injection control facilities, petroleum underground storage tank facilities, PCB storage facilities, and hazardous waste treatment, storage and disposal facilities, it must add those costs to the closure, post-closure, and remedial action costs it seeks to assure under this section. The total that may be assured must not exceed forty-three percent (43%) of the local government's total annual revenue.

015.04C The owner or operator must obtain an alternate financial assurance instrument for those costs that exceed the limits set in Sections 015.04A and 015.04B.

## 016 Corporate Guarantee.

016.01 An owner or operator may meet the requirements of this chapter by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in Section 014 and must comply with the terms of the guarantee. A certified copy of the guarantee must be placed in the facility's operating record along with the copies of the letter from the guarantor's chief

financial officer and accountants' opinions. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor's chief financial officer must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

016.02 The guarantee must be effective and all required submissions placed in the operating record before the initial receipt of waste in the case of closure and post-closure care, or in the case of remedial action no later than 120 days after the remedial action workplan has been approved by the Department.

016.03 The terms of the guarantee must provide that:

016.03A If the owner or operator fails to perform closure, post-closure care, and/or remedial action of a facility covered by the guarantee, the guarantor will:

016.03A1 Perform, or pay a third party to perform, closure, post-closure care, and/or remedial action as required (performance guarantee); or

016.03A2 Establish a fully funded trust fund as specified in Section 010 in the name of the owner or operator (payment guarantee).

016.03B The guarantee will remain in force for as long as the owner or operator must comply with the applicable financial assurance requirements of this chapter unless the guarantor sends prior notice of cancellation by certified mail to the owner or operator and to the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

016.03C If notice of cancellation is given, the owner or operator must, within 90 days following receipt of the cancellation notice by the owner or operator and the Department, obtain alternate financial assurance, place evidence of that alternate financial assurance in the facility operating record, and notify the Department. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within 120 days of the cancellation notice, obtain alternative assurance, place evidence of the alternate assurance in the facility operating record, and notify the Department.

016.04 If a corporate guarantor no longer meets the requirements of Section 014.01, the owner or operator must, within 90 days, obtain alternate assurance, place evidence of the alternate assurance in the facility operating record, and notify the Department. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within the next 30 days.

016.05 The owner or operator is no longer required to meet the requirements of this section when:

016.05A The owner or operator substitutes alternate financial assurance as specified in this chapter; or

016.05B The owner or operator is released from the requirements of this chapter in accordance with 004, 006, or 008.

017 Local Government Guarantee. An owner or operator may demonstrate financial assurance for closure, post-closure and remedial action, as required by Sections 004, 006, and 008, by obtaining a written guarantee provided by a local government. The guarantor must meet the requirements of the local government financial test in Section 015, and must comply with the terms of a written guarantee.

017.01 Terms of the written guarantee. The guarantee must be effective before the initial receipt of waste in the case of closure, post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department. The guarantee must provide that:

017.01A If the owner or operator fails to perform closure, post-closure care, and /or remedial action of a facility covered by the guarantee, the guarantor will:

017.01A1 Perform, or pay a third party to perform, closure, post-closure care, and/or remedial action as required (performance guarantee); or

017.01A2 Establish a fully funded trust fund as specified in Section 010 in the name of the owner or operator (payment guarantee).

017.01B The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and the Department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department, as evidenced by the return receipts.

017.01C If a guarantee is canceled, the owner or operator must, within 90 days following the receipt of the cancellation notice by the owner or operator and the Department, obtain alternate financial assurance, place evidence of that alternate financial assurance in the facility operating record, and notify the Department. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within 120 days following the guarantor's notice of cancellation, place evidence of the alternate assurance in the facility operating record, and notify the Department.

017.02 Recordkeeping and reporting.

017.02A The owner or operator must place a certified copy of the guarantee along with the items required in Section 015.03 into the facility's operating record before the initial receipt of waste in the case of closure, post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department.

017.02B The owner or operator is no longer required to maintain the items specified in Section 017.02 when:

017.02B1 The owner or operator substitutes alternate financial assurance as specified in this chapter; or

017.02B2 The owner or operator is released from the requirements of this chapter in accordance with Sections 004, 006, or 008.

017.02C If the local government guarantor no longer meets the requirements of Section 015, the owner or operator must, within 90 days, obtain alternative assurance, place evidence of the alternate assurance in the facility operating record, and notify the Department. If the owner or operator fails to obtain alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within the next 30 days.

018 State-Approved Mechanism. An owner or operator may satisfy the requirements of this chapter by obtaining any other mechanism that meets the criteria specified in 009, and that is approved by the Department.

019 Use of Multiple Financial Mechanisms. An owner or operator may demonstrate financial assurance for closure, post-closure and remedial action, as required in Section 004, 006 and 008, by establishing more than one financial mechanism per solid waste management facility, except that mechanisms guaranteeing performance, rather than payment, may not be combined with other instruments. The mechanisms must be as specified in 010 to 018 of the chapter, except that financial assurance for an amount at least equal to the current cost estimate for closure, post-closure care, or remedial action, may be provided by a combination of mechanisms, rather than a single mechanism.

020 The language of the mechanisms listed in 010 to 018 must ensure that the instruments satisfy the following criteria:

020.01 The financial assurance mechanisms must ensure that the amount of funds assured is sufficient to cover the costs of closure, post-closure care and remedial action for known releases when needed;

020.02 The financial assurance mechanism must ensure that funds will be available to the Department in a timely fashion when needed;

020.03 The financial assurance mechanisms must be obtained by the owner or operator by the effective date of these requirements or prior to the initial receipt of solid waste, whichever is later, in the case of closure and post-closure care, or no later than 120 days after the remedial action workplan has been approved by the Department, and must be maintained until the owner or operator is released from the financial assurance requirements under Sections 002 to 007.

020.04 The financial assurance mechanisms must be legally valid, binding, and enforceable under State and Federal law.

021 Forfeiture. If the owner or operator of a solid waste management facility fails to properly implement the applicable closure or post-closure plan or remedial action program, the Department shall declare all or any appropriate part of the financial assurance as forfeited.

022 In the event a determination to forfeit financial assurance is made, the Department shall:

022.01 Send written notification by certified mail, return receipt requested, to the owner or operator and the surety, escrow agent, or other person responsible for financial assurance of the

Department's determination to forfeit all or part of the financial assurance and the reasons for the forfeiture, including a finding of amount to be forfeited;

022.02 The owner or operator may request a hearing on the issue of whether the financial assurance, or part thereof, shall be forfeited in accordance with the procedures specified in Neb. Rev. Stat. §81-1507 (1)(2) and the Department's Title 115 - Rules of Practice and Procedure.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 81-1505(1)(13)(21); 81-1528(7)

Legal Citation: Title 132, Ch. 8, Nebraska Department of Environmental Quality

**Chapter 9 - PERMIT APPLICATION FEES**

001 Scope. This chapter shall apply to:

001.01 Any application by any person for a permit to:

001.01A Operate a solid waste management facility for which a permit is required pursuant to the Integrated Solid Waste Management Act, Sections 13-2001 through 13-2043 Revised Statutes of Nebraska, 1992; or

001.01B Operate a facility governed by the Nebraska Environmental Protection Act, Sections 81-1501 through 81-1533, Reissue Revised Statutes of Nebraska, 1943.

001.02 Any major modification to the design or operation of any of the permitted facilities of Section 001.01 above.

002 Fee schedule. Non-refundable fees in the following amounts shall be paid in full and shall accompany an application for a permit to operate a facility or for renewal of a permit or for a major modification to any permitted facility:

	Initial	Major Modification	Renewal	Initial Application for Existing Facility
Municipal Solid Waste Disposal Area	\$15,000	\$ 7,500	\$ 750	\$1,500
Construction Demolition Disposal Area	1,500	500	250	150
Fossil Fuel Combustion Ash Disposal Area	2,500	1,250	300	250
Delisted Waste Disposal Area	45,000	22,250	2,250	4,500
Industrial Waste Disposal Area	3,100	1,500	350	310
Solid Waste Compost Site	3,100	1,500	350	310

Materials Recovery Facility	1,500	500	250	150
Solid Waste Transfer Station	500	250	150	50
Other Solid Waste	750	375	100	75
Land Application Unit for Repeated Disposal or Treatment of Special Waste	3,100	1,500	350	310

003 Fees for Multiple Facilities on Same Location. For facilities which are located on the same premises, fees shall be equal to the highest fee required for any type of facility plus 20% of the initial fee for each of the remaining facilities. This same method shall be used for fees required for major modifications to facilities on the same premises.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2041; 81-1504; 81-1505

Legal Citation: Title 132, Ch. 9 Nebraska Department of Environmental Quality

### **Chapter 10- ANNUAL OPERATING FEES**

001 Facilities Affected. Any owner or operator of a solid waste management facility falling under the provisions of 001 of Chapter 9 of these regulations shall pay to the Department an annual operating fee in the amount set out below in 004 of this chapter.

002 Form. An owner or operator of a facility shall submit an annual operating fee to the Department accompanied by a form provided by the Department and completed by the owner or operator.

003 Date. The owner or operator shall submit the fee specified in 004 of this chapter no later than October 1 of each year following the first full year of operation.

004 Fee Schedules.

004.01 The annual operating fee for a facility under 001 of Chapter 9 of these regulations shall be:

Municipal Solid Waste Disposal Area	\$ 7,500
Construction Demolition Disposal Area	750
Fossil Fuel Combustion Ash Disposal Area	1,000
Delisted Waste Disposal Area	45,000
Industrial Waste Disposal Area	2,100
Solid Waste Compost Site	2,100
Materials Recovery Facility	1,500

Solid Waste Transfer Station	500
Other Solid Waste Processing Facility	500
Land Application Unit for Repeated	2,500
Disposal or Treatment of Special Waste	

005 For multiple facilities which are located on the same premises, the annual operating fee shall be equal to the highest single fee required plus 20% of the annual fee for any additional facility.

Enabling Legislation: Neb. Rev. Stat. §§13-2034; 13-2041; 81-1504; 81-1505

Legal Citation: Title 132, Ch. 10, Nebraska Department of Environmental Quality

### **Chapter 11 - DISPOSAL FEES**

001 Disposal Fees. An owner or operator of a municipal solid waste disposal area regulated by the Department shall remit to the Department in the manner prescribed below a fee based on the volume or weight of solid waste entering the municipal solid waste disposal area.

001.01 The fee imposed by 001 of this chapter for disposing of solid waste in municipal solid waste disposal areas regulated by the Department shall be:

001.01A For each six (6) cubic yards of uncompacted solid waste: \$1.25; or

001.01B For each three (3) cubic yards of solid waste which has been compacted by a compacting machine: \$1.25; or

001.01C For each ton of solid waste: \$1.25.

001.02 The owner or operator of the municipal solid waste disposal area shall make the fee payment required by this chapter on a quarterly basis.

001.02A The owner or operator shall make the preceding quarter fee payment to the Department on or before the forty-fifth day following the end of each calendar quarter.

001.02B Each fee payment shall be made to the Department upon receipt of an invoice. The owner or operator shall return the invoice with information which:

001.02B1 States the total volume or weight of solid waste disposed of at the facility during the payment period;

001.02B2 Provides any other information which the Department deems necessary; and

001.02B3 Provides authorized signatures of the owner or operator.

002 Weight or Volume Information. It shall be the responsibility of an owner or operator to determine the weight or volume of solid waste entering the municipal solid waste disposal area each day.

002.01 The owner or operator shall record or cause to be recorded the following information on each incoming load of solid wastes or recyclables:

002.01A The facility's name or permit number;

002.01B The solid waste jurisdiction area;

002.01C The name and address of the owner of the vehicle carrying the load and the vehicle's number, if any;

002.01C1 If the truck does not have a number, the driver of the truck shall describe the make, model, and capacity of the truck as fully as possible.

002.01D The actual or estimated load weight or load volume;

002.01E Type of material or materials: recyclables, solid wastes, inert materials (such as construction or demolition wastes), special wastes, etc.; and

002.01F Type of route if applicable: commercial, industrial, residential or any combination.

002.02 The owner or operator shall place the information in the operating records of the facility, and shall consult these records in providing the Department with the information required by 001.02B1 of this chapter. This information does not have to be submitted to the Department as part of the submittal required by Chapter 2, 007.

002.03 If the owner or operator elects to have drivers or haulers record the information required by 002.01A - 002.01F of this chapter, the owner or operator shall provide each driver or hauler with a data collection form.

003 Penalty for Non-Payment. If an owner or operator fails to pay his or her quarterly disposal fee by the date given in 001.02A of this chapter, the Department shall assess on the amount due an interest penalty at the rate specified in Section 45-104.02, as such rate may from time to time be adjusted.

Enabling Legislation: Neb. Rev. Stat. §§ 13-2034, 13-2042, 81-1504 and 81-1505

Legal Citation: Title 132, Ch. 11, Nebraska Department of Environmental Quality

## Chapter 12 - DISPOSAL FEE REBATES

001 Purpose. The purpose of this chapter is to govern the application and reporting requirements for a rebate of a portion of the disposal fee mandated by Neb. Rev. Stat. §13-2042.

002 Eligible Applicant. An eligible applicant is any municipality or county which has a defined solid waste jurisdictional area and owns or operates or has a contract with a solid waste management disposal area.

003 Application Procedures. Applications meeting the following conditions will be considered for obtaining the rebate of the disposal fee:

003.01 Rebate application deadline. Beginning December 31, 1994, rebate applications shall be submitted to the Department of Environmental Quality no later than February 1 to be considered for the current calendar year.

003.02 Application Address. All applications shall be submitted to the Lincoln office of the Nebraska Department of Environmental Quality, Integrated Waste Management Section at the address stated on the application form.

003.03 Application Content. An application shall be on a form prescribed by the Department which includes the following information:

003.03A Name and address of applicant.

003.03B A copy of the written Purchasing Policy in effect and a certification signed by the chief executive officer confirming that the policy is currently in effect.

003.03C The signature of the applicant's chief executive officer or authorized agent.

003.03D Any other information required by the Department.

004 Minimum Purchasing Policy Content. The Purchasing Policy must contain, at a minimum, the following provisions:

004.01 The policy shall provide identification of any recycled products, materials, or supplies that the municipality or county intends to purchase and a list of all departments required to follow the Purchasing Policy.

004.02 The policy shall indicate that bid specifications have been revised to provide for preferences and/or set asides for recycled products, materials, or supplies. The policy shall stipulate that the recycled products, materials, or supplies shall consist of at least 10% post-consumer material, unless otherwise approved by the Director, as a minimum content standard.

004.03 The policy shall provide that the preference or set aside shall not operate when it would result in the purchase of products, materials, or supplies which are of inadequate quality as determined by the municipality or county.

004.04 The municipality or county will strive to continually increase the percentage of total annual purchases of products, materials, or supplies manufactured or produced from post-consumer material.

004.05 The municipality or county will continually strive to annually increase the types and variety of products, materials, or supplies purchased that are manufactured or produced from post-consumer material.

005 Application Rejection. Applications may be rejected by the Department, as a result of, but not limited to, any of the following reasons:

005.01 Failure to comply with the requirements as stated in these regulations.

005.02 Failure to submit a complete application by the stated deadline as described in Section 003.01.

005.03 Falsification or misrepresentation of information.

005.04 Failure to provide annual and quarterly reports by specified deadlines.

006 Rebate Suspension. The rebate may be suspended by the Department, as a result of, but not limited to, any of the following reasons:

006.01 The municipality or county is not following the Purchasing Policy as presented in the approved application.

006.02 A determination by the Department of Environmental Quality or by the Department of Administrative Services that the municipality's or county's Purchasing Policy is not effective in assuring a preference to products, materials, or supplies which are manufactured or produced from post-consumer material.

006.03 Failure to comply with Department audit requirements.

007 Reinstatement of Suspended Rebate. The municipality or county must provide the documentation and information required by the Department to initiate a reinstatement of the suspended rebate.

007.01 To obtain a reinstatement, the Department must determine that the municipality or county is complying with the requirements of this chapter.

007.02 The Department must determine that the municipality or county is providing a preference to products, materials, or supplies which are manufactured or produced from post-consumer material pursuant to their written Purchasing Policy which has been submitted to and approved by the Department subsequent to the suspension.

008 Appeals. Any suspension of the rebate or denial of an application made under these rules and regulations may be appealed. The appeal shall be in accordance with the Administrative Procedure Act.

009 Annual Reports. The rebate recipient shall submit annual reports to the Department of Environmental Quality before April 1 of each year, in order to continue receiving the rebate. The annual report shall provide the following information on a form prescribed by the Department:

009.01 A summary of accomplishments addressing those objectives and goals stated in the approved application, including the past year's percentage of total purchases applied to products, materials, or supplies manufactured or produced from post-consumer material.

009.02 A description of the recordkeeping system being used to keep an accurate record of purchases of recycled products, materials, or supplies.

009.03 A list of all departments or governmental subdivisions participating in and using the Purchasing Policy.

009.04 A list of products, materials, and supplies purchased in accordance with the Purchasing Policy, and of recycled products reviewed for purchase.

009.05 Any revisions or modifications to the present Purchasing Policy. Modifications or revisions must be within the scope of the originally approved application.

009.06 Any other information required by the Department.

009.07 A copy of the contract or a description of the arrangements the municipality or county has with a permitted municipal solid waste disposal area and with solid waste haulers, including names and addresses.

009.08 A description of the recordkeeping system that will provide the Department with an accurate accounting of the amount of waste disposed at the municipal solid waste disposal area from the described solid waste jurisdictional area.

010 Quarterly Reports. The rebate recipient shall submit quarterly reports to the Department of Environmental Quality on or before the forty-fifth day following the end of each calendar quarter. The quarterly report shall be on a form prescribed by the Department which consists of the following:

010.01 A complete description and geographical definition of the municipality's or county's solid waste jurisdictional area.

010.02 The name and address of the permitted municipal solid waste disposal area where the waste was disposed.

010.03 An accurate accounting of the cubic yards and/or tons of waste disposed at a permitted municipal solid waste disposal area that originated from the municipality's or county's defined solid waste jurisdictional area.

010.04 Any other information required by the Department.

011 Disbursement of Rebate. The Department shall rebate to the municipality or county of origin ten cents of the disposal fee required by Chapter 11, 001, for each six cubic yards of uncompacted solid waste, for each three cubic yards of compacted solid waste, or for each ton of solid waste disposed at a permitted municipal solid waste disposal area.

011.01 Rebates shall be disbursed to an approved applicant quarterly on or before the thirtieth day after receipt of the quarterly report from the municipality or county of origin.

012 Audits. Rebate recipients shall be subject to audits by the Department or its agents. Audits may include, but are not limited to, on-site inspections and review of financial records and relevant documents relating to the rebate and disposal fee program. Records shall be made available to the Department for the three previous calendar years. The rebate recipient shall be responsible for making the following records available to the Department upon request:

012.01 Documentation of modifications to purchasing specifications and/or solicitation for bids and proposals to ensure that the municipality or county buys products, materials, or supplies manufactured or produced from post-consumer material.

012.02 Financial records, copies of all receipts, and other relevant materials to document expenditures for products, materials, or supplies manufactured or produced from post-consumer material.

012.03 Documentation used to calculate the cubic yards and/or tons of waste originating from the county's or municipality's solid waste jurisdictional area.

012.04 Documentation of the percentage of post-consumer material actually used in the products, materials, or supplies purchased in accordance with the Purchasing Policy.

012.05 Any other information required by the Department.

013 Penalties. Penalties may result from a violation of these regulations or specific rebate conditions.

Penalties shall include suspension of rebate, reimbursement of rebate funds, or both.

Enabling Legislation: Neb. Rev. Stat. §§ 13-2034, 13-2042.01, 81-1505

Legal Citation: Title 132, Ch. 12, Nebraska Department of Quality

### **Chapter 13 - SPECIAL WASTES**

001 No person shall dispose of a special waste at any place except a permitted solid waste disposal area which is operated and maintained in compliance with Department regulations and authorizations, unless the Department grants prior written approval for an alternate location and management method.

002 Classification. Wastes shall be classified as special wastes by the Department on a case-by-case basis. The Department shall make a determination based upon the characteristics and properties of the solid waste. The Department's determination shall be based upon the following information:

002.01 A general description of the waste;

002.02 The source of the waste, including the name and address of the generator;

002.03 A description of the industrial process which results in the waste, if applicable;

002.04 The quantity of the waste to be disposed (volume and/or weight);

002.05 A detailed description or analyses of the physical properties of the waste including, but not limited to size, density, and percent solids, if applicable;

002.06 A detailed description or analyses of the chemical properties of the waste including, but not limited to, pH, reactivity, leachability and total metals, if applicable;

002.07 A description or analyses of the biological properties of the waste, if applicable, including but not limited to, pathogens;

002.08 The liquid content, if any, of the waste;

002.09 A description of the method and location of the proposed disposal; and

002.10 Any other information about the waste as required by the Department in order to make a determination.

003 Alternate management methods. The Department shall grant prior written approval for alternate locations and management methods for special wastes based on an evaluation of the characteristics and properties of the waste and the suitability of the location and management method proposed. This evaluation will be based on, but not limited to, the following criteria:

003.01 Distance from inhabited residences, businesses, or facilities/lands frequented by the public;

003.02 Distance from drinking water wells (municipal, domestic, etc.);

003.03 Distance from any surface water features (ponds, lakes, streams, etc.);

003.04 Location within a 100-year flood plain or within areas designated as wetlands;

003.05 Location within a designated wellhead protection area, or other Title 118 - Ground Water Quality Standards and Use Classification Class GA areas;

003.06 Soil type, permeability and slope of land;

003.07 Depth to ground water; and

003.08 Any other information about the location or management method as required by the Department.

004 Infectious wastes. Infectious wastes shall not be disposed of at any solid waste disposal area unless such wastes are first rendered non-infectious by incineration, autoclaving, or other treatment method. This provision does not apply to infectious waste from households.

005 Delisted wastes. The Director may require the disposal of delisted wastes in a delisted waste disposal area as deemed necessary to protect human health and the environment.

Enabling Legislation: Neb. Rev. Stat. §§81-1504(1)(2)(12)(13); 81-1505(1)(13); 81-1506(1)(a); 81-1514

Legal Citation: Title 132, Ch. 13, Nebraska Department of Environmental Quality

#### **Chapter 14 - ACCUMULATION OF JUNK**

001 No property owner or person in lawful possession of property shall allow the accumulation of junk on property, that is not purely agricultural in character, to the extent that such accumulation is a potential hazard to health.

002 The Director, or an authorized representative, shall have the power to investigate all complaints of accumulation of junk and if it is found that the property owner or person in lawful possession of the property has allowed an unlawful accumulation of junk, notice shall be given to the owner or person in lawful possession of the property by certified or registered mail to remove the accumulation within thirty (30) days.

003 When any property owner or person in lawful possession of property fails or refuses to remove an accumulation of junk, as directed by the Director as provided above, the Director shall request that the county attorney of the county in which the property is located or the Attorney General prosecute the property owner or person in lawful possession of the property for a violation of the Environmental Protection Act.

Enabling Legislation: Neb. Rev. Stat. §§81-1523 thru 81-1525

Legal Citation: Title 132, Ch. 14, Nebraska Department of Environmental Quality

#### **Chapter 15 - PLASTIC CONTAINER CODING**

001 Applicability. No person shall manufacture or distribute a plastic bottle or rigid plastic container unless such bottle or container is imprinted with a code identifying the appropriate resin type used to produce the structure of the container.

001.01 The code shall identify the appropriate resin type used to produce the structure of the container. The code shall consist of a number placed within three triangulated arrows and letters placed below the triangle of arrows. The triangulated arrows shall be equilateral, formed

by three arrows with the apex of each point of the triangle at the midpoint of each arrow, rounded with a short radius. The arrowhead of each arrow shall be at the midpoint of each side of the triangle with a short gap separating the arrowhead from the base of the adjacent arrow. The triangle, formed by the three arrows curved at their midpoints, shall depict a clockwise path around the code number. The number and letter codes shall be:

1 and PETE, representing polyethylene terephthalate;  
2 and HDPE, representing high density polyethylene;  
3 and V, representing vinyl;  
4 and LDPE, representing low density polyethylene;  
5 and PP, representing polypropylene;  
6 and PS, representing polystyrene; and  
7 and OTHER.



For illustrative purposes only.

002 Failure to comply with these regulations may be grounds for enforcement pursuant to Neb. Rev. Stat. §69-2504.

Enabling Legislation: Neb. Rev. Stat. §§ 69-2501 through 69-2507

Legal Citation: Title 132, Ch. 15, Nebraska Department of Environmental Quality

### **Chapter 16 - GENERAL PROVISIONS**

001 Failure to comply with these regulations may be grounds for administrative enforcement proceedings as provided by §81-1507, or court proceedings brought by the county attorney or Attorney General pursuant to §81-1508, and a mandatory injunction.

002 If any clause, paragraph, subsection, or section of these regulations shall be held invalid, it shall conclusively be presumed that the Environmental Quality Council would have enacted the remainder of these regulations not directly related to such clause, paragraph, subsection or section.

003 Any appeal from any final order or final determination of the Director shall be pursuant to §81-1509.

004 These rules and regulations may be amended or repealed pursuant to the Rules of Practice and Procedures of the Department of Environmental Quality, which procedure shall conform to §84-901 through §84-919.

005 These rules and regulations shall become effective five (5) days after filing with the Secretary of State.

Enabling Legislation: Neb. Rev. Stat. §§13,2034; 81-1505(13)(d), (17), (18); 81-1507; 81-1508; 81-1509; 84-906

Legal Citation: Title 132, Ch. 16, Nebraska Department of Environmental Quality

**APPENDIX I**  
**CONSTITUENTS FOR DETECTION MONITORING**

Inorganic Constituents:	
(1) Antimony	(Total)
(2) Arsenic	(Total)
(3) Barium	(Total)
(4) Beryllium	(Total)
(5) Cadmium	(Total)
(6) Chromium	(Total)
(7) Cobalt	(Total)
(8) Copper	(Total)
(9) Lead	(Total)
(10) Nickel	(Total)
(11) Selenium	(Total)
(12) Silver	(Total)
(13) Thallium	(Total)
(14) Vanadium	(Total)
(15) Zinc	(Total)
Organic Constituents:	
(16) Acetone	67-64-1
(17) Acrylonitrile	107-13-1
(18) Benzene	71-43-2

(19) Bromochloromethane	74-97-5
(20) Bromodichloromethane	75-27-4
(21) Bromoform; Tribromomethane	75-25-2
(22) Carbon disulfide	75-15-0
(23) Carbon tetrachloride	56-23-5
(24) Chlorobenzene	108-90-7
(25) Chloroethane; Ethyl chloride	75-00-3
(26) Chloroform; Trichloromethane	67-66-3
(27) Dibromochloromethane; Chlorodibromomethane	124-48-1
(28) 1,2-Dibromo-3-chloropropane; DBCP	96-12-8
(29) 1,2-Dibromoethane; Ethylene dibromide; EDB	106-93-4
(30) o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1
(31) o-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
(32) trans-1,4-Dichloro-2-butane	110-57-6
(33) 1,1-Dichloroethane; Ethylidene chloride	75-34-3
(34) 1,2-Dichloroethane; Ethylene dichloride	107-06-2
(35) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4
(36) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
(37) trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5
(38) 1,2-Dichloropropane; Propylene dichloride	78-87-5
(39) cis-1,3-Dichloropropene	10061-01-5
(40) trans-1,3-Dichloropropene	10061-02-6
(41) Ethylbenzene	100-41-4
(42) 2-Hexanone; Methyl butyl ketone	591-78-6

(43) Methyl bromide; Bromomethane	74-83-9
(44) Methyl chloride; Chloromethane	74-87-3
(45) Methylene bromide; Dibromomethane	74-95-3
(46) Methylene chloride; Dichloromethane	75-09-2
(47) Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
(48) Methyl iodide; Iodomethane	74-88-4
(49) 4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
(50) Styrene	100-42-5
(51) 1,1,1,2-Tetrachloroethane	630-20-6
(52) 1,1,2,2-Tetrachloroethane	79-34-5
(53) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
(54) Toluene	108-88-3
(55) 1,1,1-Trichloroethane; Methylchloroform	71-55-6
(56) 1,1,2-Trichloroethane	79-00-5
(57) Trichloroethylene; Trichloroethane	79-01-6
(58) Trichlorofluoromethane; CFC-11	75-69-4
(59) 1,2,3-Trichloropropane	96-18-4
(60) Vinyl acetate	108-05-4
(61) Vinyl chloride	75-01-4
(62) Xylenes	1330-20-7

1. This list contains 47 volatile organics for which possible analytical procedure provided in EPA Report SW-846 "Test Methods for Evaluating Solid Waste", third edition, November 1986, as revised December 1987, includes Method 8260; and 15 metals for which SW-845 provides either Method 6010 or a method from the 7000 series of methods.

2. Common Name Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

3. Chemical Abstracts Service registry number. Where “Total” is entered, all species in the ground water that contain this element are included.

**APPENDIX II**

LIST OF HAZARDOUS INORGANIC AND ORGANIC CONSTITUENTS

*Contact the Nebraska Department of Environmental Quality for a copy of this Appendix.*

**APPENDIX III**

CONCENTRATION VALUES AT THE RELEVANT POINT OF COMPLIANCE

<u>Chemical</u>	<u>MCL (mg/l)</u>
Arsenic	0.05
Barium	1.0
Benzene	0.005
Cadmium	0.01
Carbon tetrachloride	0.005
Chromium (hexavalent)	0.05
2,4-Dichlorophenoxy acetic acid	0.1
1,4-Dichlorobenzene	0.075
1,2-Dichloroethane	0.005
1,1-Dichloroethylene	0.007
Endrin	0.0002
Fluoride	4
Lindane	0.004
Lead	0.05

Mercury	0.002
Methoxychlor	0.1
Nitrate	10
Selenium	0.01
Silver	0.05
Toxaphene	0.005
1,1,1-Trichloromethane	0.2
Trichloroethylene	0.005
2,4,5-Trichlorophenoxy acetic acid	0.01
Vinyl Chloride	0.002