

4-2-6: DISPOSAL SITES:

- A. Sanitary Disposal Required: Solid waste shall be disposed in a way that will protect the public health, safety and welfare and prevent air and water pollution.
- B. Disposal Of Waste Restricted: No person, city, town, municipality, county, or other government unit shall dispose of any solid waste at any place except at a disposal site approved by the city, which is operated and maintained in accordance with the requirements of this chapter.
- C. City Approval And Bond Required: No construction or operation of a disposal facility or site shall be initiated before plans and specifications are approved in writing by the city. No significant modifications shall be made in any disposal site or its operations without approval of the city. No person shall operate a disposal site without first obtaining a valid permit from the city and posting a bond, if required in section 4-2-3 of this chapter.
- D. Report, Application And Approval Required For Permit: The city regulates the construction and operation of waste disposal sites under the land use authority granted to the city under the provisions of state law. All waste disposal sites are conditional uses within the industrial zone established under the zoning ordinances of the city. The term "application" used in this section is an application for a conditional use permit and the permit under this section which may be issued by the city upon approval of the application and site condition is a conditional use permit. Each conditional use permit issued under this section shall be annually renewable and may be reviewed by the city based on the failure of the permittee to comply with all of the terms and conditions for operation of the site specified by the city and the state. Before issuance of approval to construct or a permit to operate a disposal site, an application for a permit and a report shall be submitted to the city for review and approval. The report shall be prepared by a registered professional engineer, except this requirement may be waived by the city if justified by the size, simplicity or location of the disposal site. The application shall be submitted on a form provided by the city with the operational permit, application and required fee. Unless otherwise directed by the city, the report shall include the following information:
1. The names or persons responsible for actual operation and maintenance of the site and the number of personnel to be employed at the site.
 2. The present and future population and area to be served by the proposed site.
 3. Evidence of land ownership or lease agreements.
 4. The total area of the proposed site.

5. A plat, map, or aerial photograph that accurately shows the exact location of the proposed disposal site, current land use and zoning within one-fourth ($\frac{1}{4}$) mile (402 meters) of the site. The map or aerial photograph shall be of sufficient scale to show all homes, industrial buildings, airports, wells, watercourses, surface drainage channels, rock, outcroppings, roads, general topography, and other applicable details. All such details shall be identified and indicated on the plat, map or aerial photograph.
6. A soil description to a depth of at least five feet (5') (1.5 meters) below the proposed site or proposed excavations and a general description of geology of the area. Data shall be obtained by soil boring, trenching or other methods approved by the city.
7. A description of surface water within one-fourth ($\frac{1}{4}$) mile (402 meters) of the land disposal site, including seasonal variations; a description of minimum and maximum ground water elevations throughout the site; ground water flow patterns; and ground water quality and quantity. In addition, the city may require ground water monitoring wells and a water quality sampling and analysis program of ground and surface waters prior to construction and operation of a site, during operation of a site, and after closure of a site. If the program is required, the following provision of the program shall be submitted to city approval:
 - a. The number, location and depth of the wells;
 - b. Methods of construction of the wells;
 - c. The name of the person to perform the sampling, the sampling frequency, and sampling period;
 - d. The type of analysis that is to be performed;
 - e. The methods of analysis; and
 - f. The name of the laboratory performing the analysis.
8. The availability, source, and characteristics of cover material.
9. Potential leachate and decomposition gas generation, including the amount and physical and chemical characteristics; proposed leachate and decomposition gas control systems, if necessary, including the methods of monitoring, collection, treatment, and necessary disposal.
10. The anticipated type, quantity, and source of solid waste to be deposited at the site.
11. The intended operating program and procedures, including:
 - a. The hours and days of operation;
 - b. Existing and proposed utilities;
 - c. The method and plan of landfilling;

- d. The type and availability of equipment for efficient excavating, earth moving, spreading, compaction and other needs;
 - e. Fencing for control of access and the prevention of scattering of waste material by wind;
 - f. Provisions for fire control;
 - g. Provisions for handling special or hazardous wastes or both;
 - h. Employee facilities; and
 - i. Any other pertinent information that clearly indicates the orderly development, operation and completion of the sanitary landfill.
12. Evidence of year round accessibility, including an all weather road to the site.
13. The expected life span of the site, the anticipated use of the land following completion as a disposal site, and the program for maintaining the site following closure, as required in subsection G of this section.
14. Any other information specifically requested by the city to ensure compliance with this chapter.

E. Basis And Procedure For Plan Approval: The following conditions and procedures of plan approval shall be followed:

- 1. Plan approval will depend, in part, upon adequate isolation and avoidance of excessively irregular topography, ground water elevations; extremely pervious soil formations; surface rock formations and outcroppings; and close proximity to natural drainage channels. There shall be at least five feet (5') (1.5 meters) of separation between the bottom of disposal trenches and the highest ground water elevation. Exceptions to this requirement will be considered on a case by case basis, but only if the site can be modified to demonstrably preclude any wetting of deposited waste by ground water.
- 2. Upon approval of the plans and supporting information, persons conamed will be notified in writing by the city. Approval will include appropriate limitations of types of solid waste to be accepted.
- 3. The city may revise its approval or disapproval to construct or operate a site in order to make it compatible with new ordinances that are adopted by the city.

F. Minimum Site Requirements: Unless otherwise ordered or approved by the city, each sanitary landfill or land disposal site shall be designed, constructed, operated and maintained to meet the following minimum requirements:

1. Only waste for which the site has been designed and for which the city has given approval shall be accepted at the site.
2. The site shall be designed, constructed, operated and maintained in a way that will protect the health and safety of individuals employed at the site, users of the site, and the public.
 - a. A safety manual shall be available for use by employees and they shall be instructed in application of the manual's procedures.
 - b. Personal safety devices, including, but not limited to, hard hats, gloves, safety glasses and footwear, shall be required for site employees.
 - c. Safety devices, including, but not limited to, rollover protective structures, seat belts, audible reverse warning devices and fire extinguishers, shall be provided on all equipment used to spread and compact solid wastes or cover material.
3. Qualified personnel shall be at the site to supervise activities during all hours of scheduled operation.
4. The site shall not allow uncontrolled public access, and the site shall be accessible only when operating personnel are on duty.
5. A sign shall be posted at the entrance of the site that indicates the name, permit number, hours of use, penalty for unauthorized use, necessary safety precautions, types of waste accepted or prohibited, and any other pertinent information to ensure the safety and health of the public and employees. Signs shall be posted to direct traffic in an orderly manner, to show general discharge area, restrictions and access to hazardous waste or special waste disposal area, and to maintain efficient operating conditions.
6. The supervisor or other responsible person shall keep records of amounts and types of solid waste accepted. This may be done by weighing the material brought to the site, measuring the volume of waste deposited, or estimating the area filled on the site. This amount and location of area completed shall be recorded and kept on file. Such records shall be made available to the city upon request.
7. Dust shall be controlled at the site and along access roads as necessary to maintain the comfort and health of employees and users of the site and to comply with applicable air pollution control ordinances and regulations.
8. Access roads and the site shall be cleaned as often as necessary to prevent unsightly conditions caused by blowing papers and other misplaced refuse.
9. All solid waste shall be unloaded and deposited only in those areas of the site designated by site personnel and as authorized by the city in the plan approval.
10. Adequate equipment for trenching, compacting and covering shall be available.

11. All solid waste shall be compacted to the greatest degree practical. The working face shall be limited to the smallest area practical to confine the amount of exposed waste without interfering with effective operation procedures.
12. At least six inches (6") (15.2 centimeters) of covered material shall be placed daily over all solid waste received each day or as often as directed by the city, after compaction to the smallest practical volume. Cells that will not have additional solid waste placed on them for three (3) months or more shall be covered with twelve inches (12") (30.5 centimeters) of cover material. A minimum of two feet (2') (61 centimeters) of cover material shall be placed over any completed segment of the site.
13. Salvaging shall be conducted in a way that it prevents injury, interference with required site operations, and the creation of a health hazard, nuisance or vector harborage. Drugs, cosmetics, foods, beverages, hazardous chemicals, poisons, pesticides, pathogenic or medical wastes, syringes, needles, or other similar materials capable of impairing public health shall not be salvaged unless approved by the city. Scavenging shall be prohibited.
14. Insects and rodents or other disease or nuisance vectors shall be controlled at the site through minimization of food and harborage and through initiation of additional control programs if vector populations become established.
15. No open burning shall be permitted. Provisions shall be made to extinguish any fires in solid waste being delivered to the site or that occur at the working face or within equipment or personnel facilities.
16. A disposal site shall not cause:
 - a. A discharge of pollutants into waters of the United States that is in violation of the requirements of the national pollutant discharge elimination system (NPDES) under section 402 of the clean water act, as amended.
 - b. A discharge of dredged material or fill material into waters of the United States that is in violation of the requirements under section 401 of the clean water act, as amended.
 - c. Nonpoint source pollution of waters of the United States that violates applicable legal requirements implementing an area wide water quality management plan that has been approved by the administrator of the United State environmental protection agency under section 208 of the clean water act, as amended.
17. Surface water runoff shall be controlled at the site by the following measures:
 - a. Final grading of the site shall promote rapid surface runoff without excessive erosion.
 - b. The site shall be equipped with suitable channelling devices, including, but not limited to, ditches, berms or dikes, to divert surface runoff from the land area contiguous to the site.

- c. Final cover material shall be well compacted to enhance runoff while minimizing infiltration.
 - d. Runoff not contaminated by solid waste or by leachate shall be routed to a settling basin or by other equally effective control measures to remove sediment before discharge to a receiving stream.
 - e. The final soil cover on any completed portion of the site shall be seeded or otherwise vegetated to minimize erosion and maximize evapotranspiration.
18. A disposal site shall not contaminate an underground drinking water source of the ground water beyond the boundary of the disposal site as established in the plan approved by the city. For the purpose of this section, "contaminate" means the introduction of a substance that would cause the concentration of that substance in the ground water to exceed the maximum contaminant level specified by state or federal law or the city, or the introduction of a substance that would cause an increase in the concentration of that substance in the ground water if the existing concentration of that substance exceeds the maximum contaminate level specified by state or federal law, or the city.
19. Surface water, ground water, and decomposition gases shall be monitored to determine when remedial action plans are to be implemented:
- a. Monitoring wells or other monitoring devices shall be installed and maintained as approved or directed by the city.
 - b. Samples from the monitoring wells or other monitoring devices for surface and ground water shall be collected and analyzed prior to disposal of solid waste in order to obtain baseline data.
 - c. Samples shall be collected from all monitoring wells or devices and analyzed at least once a year and more often if directed by the city. Copies of the required analysis shall be submitted to the city within thirty (30) calendar days after sampling, unless otherwise directed by the city.
 - d. Monitors or suitable probes shall be used to enable detection of gases migrating from the site. Explosive gases shall be monitored for their presence above the lower explosive limit. Toxic or asphyxiating gases shall be monitored periodically on a schedule approved by the city.
20. If required by the city, leachate control shall be accomplished by one or more of the following practices:
- a. The bottom of the disposal site shall be five feet (5') (1.5 meters) or more above the seasonal high ground water table.
 - b. Leachate monitoring devices shall be approximately placed to monitor the passage of leachate from the site to the ground water.
 - c. The water table shall be lowered.

- d. There shall be no uncontrolled hydraulic connection between the site and standing or flowing surface water. Surface runoff diversion structures shall be constructed surrounding the landfill that are capable of diverting away from the landfill all of the surface water runoff from upland drainage areas. Disposal sites located in the 100-year floodplain shall have a dike of sufficient structural strength and height to prevent inundation.
- e. If natural hydrogeologic conditions are unable to eliminate the impact of the total quantity of leachate upon underlying ground water, the bottom of the site shall be lined with low permeability soil or other approved material. If natural hydrogeologic conditions are virtually incapable of eliminating the impact of any leachate upon the underlying ground water, the escape of leachate from the bottom and sides of the site shall be prevented by the placement of liners and constant drainage systems. Such liners shall have:
 - (1) A permeability of one by ten (1×10) (to the minus 7th degree) centimeters per second (one inch or 2.54 centimeters per year), or less.
 - (2) The ability to resist physical and chemical attack by leachate.
 - (3) The capability of maintaining integrity for the design life.
 - (4) A minimum thickness of twelve inches (12") (30.5 centimeters) for natural soil liners and a minimum thickness of twenty (20) mils for synthetic membrane liners, unless otherwise approved by the city.
- f. Leachate collection, treatment and disposal shall be:
 - (1) Discharged into a municipal or industrial wastewater treatment system if the discharge does not impede the operation of the wastewater treatment system;
 - (2) Disposed of by controlled application onto the surface of land if sufficient acreage is available and hydrology, soil type, vegetation, topography and climate for leachate disposal are suitable and ground water contamination will not occur;
 - (3) Recirculated onto active or completed sections of the site; or
 - (4) Accomplished using other methods approved by the city. (Ord. 8-13-02, 8-13-2002, eff. 8-13-2002)
- 21. Decomposition gases shall be prevented from migrating to other property or from concentrating in such volume that a danger of explosion or toxicity hazard is created. The concentration of explosive gases generated by the site shall not exceed twenty five percent (25%) of the lower explosive limit for the gases in a site structure, except for gas control or recovery system components. Explosive gases shall not exceed the lower explosive limit for the gases at the property line. For the purpose of this section, "lower explosive limit" shall mean the lowest percentage by volume for mixture of explosive gases that will produce a flame in the air at 78.8 degrees Fahrenheit, and atmospheric

pressure using a testing method approved by the city. Gas control shall be accomplished: (Ord. 8-13-02, 8-13-2002, eff. 8-13-2002; amd. 2003 Code)

- a. By restricting from disposal at the site volatile solid waste materials with a known high potential for release of harmful gases as a result of chemical reaction;
 - b. By construction barriers of natural or artificial materials to prevent the horizontal migration of gases;
 - c. By constructing venting or exhaust systems consisting of gravel filled trenches, or perforated pipe or both;
 - d. By providing a combination of barriers or venting systems; or
 - e. By using other methods approved by the city. (Ord. 8-13-02, 8-13-2002, eff. 8-13-2002)
22. Wastewater treatment plant sludges containing no free moisture shall be placed on the working surface and covered with municipal solid waste. (Ord. 8-13-02, 8-13-2002, eff. 8-13-2002; amd. 2003 Code)
23. Bulky wastes, including, but not limited to, automobile bodies, furniture, appliances and similar items shall be crushed and deposited on the working face near the bottom of the cell or in a separate disposal area. Other bulky items, including, but not limited to, demolition and construction debris, tree trunks, stumps and large timbers shall be deposited on the working face near the bottom of the cell or in a separate disposal area.
24. Dead animals received at the site shall be deposited on the working face at or near the bottom of the cell with other solid waste or in a separate disposal area, provided they are covered immediately with at least six inches (6") (15.2 centimeters) of cover material to prevent odors and the attraction, propagation and harborage of rodents and insects.
25. Any land disposal site disposing of garbage that may attract birds and that exists within ten thousand feet (10,000') (3,048 meters) of any airport runway used by turbo jet aircraft or within five thousand feet (5,000') (1,524 meters) of any airport runway used by only piston type aircraft shall ensure there is not a bird hazard to aircraft.
26. In addition to the requirements given in this chapter, a disposal site located in the 100-year floodplain shall not:
- a. Restrict the flood that has a one percent (1%) or greater chance of recurring in any year or a flood of a magnitude equalled or exceeded once in every one hundred (100) years on the average over a significantly long period;
 - b. Reduce the temporary water storage capacity of the floodplain; and
 - c. Result in solid waste being washed out or carried away by the waters of a flood.

27. Adequate shelter and sanitary facilities shall be available for facility or site personnel, which shall include, but not necessarily be limited to, protection from cold and wet weather, hand washing and toilet facilities, and drinking water.

G. Closing Of Land Disposal Sites:

1. Any person owning or operating a disposal site shall, prior to closure of the site, furnish the city at least a thirty (30) calendar day written notice.
2. If directed by the city, a maintenance program shall be initiated immediately following closure of a completed site and continued by the owner or operator for as long as deemed necessary by the city. The maintenance program may include, but not necessarily be limited to, the following:
 - a. Monitoring and analysis of surface water, ground water and decomposition gases;
 - b. Leachate and decomposition gas management, including collection, storage, transportation and treatment;
 - c. Land surface care, including proper drainage, erosion prevention, settlement and vegetation.

H. Closing Of Existing Or Abandoned Open Dumps: Existing or abandoned open dumps shall be closed within two (2) years following the effective date hereof, or sooner if ordered by the city and in accordance with the following requirements:

1. Absence of rats and other vermin shall be positively established. If rats or other vermin are present, an extermination procedure shall be established and carried out by qualified individuals prior to closing.
2. All fires shall be extinguished before final cover of earth is applied.
3. All solid wastes shall be consolidated, compacted and covered with at least two feet (2') (81 centimeters) of suitable cover material.
4. The final grading shall be accomplished to provide proper surface drainage and to avoid ponding.
5. If feasible, the area should be planted with grass or other vegetation.
6. Any other corrective measures to protect the public health, safety or welfare shall be made as directed by the city. (Ord. 8-13-02, 8-13-2002, eff. 8-13-2002)

