

CHAPTER 152
CRITERIA FOR SITING LOW-LEVEL RADIOACTIVE
WASTE DISPOSAL FACILITIES

567—152.1(455B) Authority, purpose and scope.

152.1(1) Authority. This chapter is authorized in Iowa Code section 455B.486, which relates to the siting of low-level radioactive waste disposal facilities.

152.1(2) Purpose. These rules establish criteria for identifying sites which are suitable for operation of low-level radioactive waste disposal facilities. The waste management authority will apply these criteria to identify and recommend to the commission sites suitable for locating these facilities.

152.1(3) Scope. These rules apply only to facilities which are owned or operated by the state of Iowa and privately owned or operated facilities which are located upon land owned by the state of Iowa which are used for low-level radioactive waste disposal pursuant to Iowa Code section 455B.486.

567—152.2(455B) Definitions. In addition to the definitions in Iowa Code section 455B.482, the following definitions apply to this chapter:

“Aquifers” means water-bearing geological formations, group of formations, or part of a formation capable of yielding significant amounts of groundwater for beneficial use.

“Conservation area” means any park, recreation area, wildlife area, forest, prairie, preserve, natural area, scenic area owned, managed, or under control of any government agency or organized conservation group on or before the effective date of these rules.

“Criterion” means a test, rule, measure, or model by which judgment will be made.

“Critical wildlife habitat” means any areas known to be inhabited on a seasonal or permanent basis by, or to be critical at any stage of the life cycle of, any wildlife or vegetation identified as “rare,” “threatened,” or “endangered” by official federal or state lists of species, or is under active consideration for listing.

“Cultural area” means any known property of recognized archaeological, architectural, cultural or historical significance as listed in or eligible for the National Register of Historic Places, the significant state site records of the Office of Historic Preservation, the office of the state archaeologist, or is under active consideration for listing. Archaeological property shall include, but is not limited to, ancient mortuary sites.

“Dam hazard area” means any area identified as an area of dynamic flooding below a dam (the inundation zone) or area of static flooding above a dam (flood pool). The inundation zone includes the area that would be flooded by a flood wave generated by dam failure during a 100-year flood. The static flooding zone is equal to the pool level reached during a 100-year inflow flood, or the top of the dam, whichever is greater.

“Drinking water source” means the groundwater or surface water intake of drinking water used for human consumption.

“Facility” means any hazardous waste management facility including land and structures, appurtenances, improvement and equipment for handling, treatment, storage or disposal of hazardous wastes.

“Floodplain” means the land adjacent to a stream which has been or may be inundated by a flood having the magnitude of the regional 100-year flood.

“Geological hazard structures” means any faults, fracture zones, or other structures that may provide pathways to groundwater.

“Karst areas” means a type of topography or surface area covered by alluvial or colluvial sediments that may form over limestone, dolomite, or gypsum formations by dissolving or solutions, and that are characterized by closed depressions or sinkholes, caves, and underground drainage.

“Mineral and energy resources” means minerals, construction materials, metals, coal, gas, and oil.

“Mining activity” means any area of past or present underground or surface mining, mineral extraction, or major exploration or production drilling for oil, gas, or mineral resources, and any area likely to be influenced by mining activity through subsidence or surface deformation.

“*Nonattainment area*” means any area not attaining the National Ambient Air Quality Standards as defined in Part D of the Clean Air Act.

“*Population area*” means any commercial, school, church, social, medical facility, elderly housing, correctional facility, mobile home park, or incorporated residential area.

“*Prevention of significant deterioration*” is defined in Part C of the Clean Air Act.

“*Prime farmland*” means any area identified as such by the United States Department of Agriculture, Soil Conservation Service.

“*Protected basins*” means any portion of the drainage basin of protected water areas within two miles of the water area. Protected water areas are those classified as such pursuant to Iowa Code chapter 462B, or high-quality waters, high-quality resource waters or Class “C” waters designated in 567—Chapter 61.

“*Proximity to major generators*” means within 50 miles of the central point of generation based on the latest available RCRA biennial report on hazardous waste generation in Iowa.

“*Seismic risk*” means the relative geologic stability of the site based on the likelihood of structural damage due to seismic events. Seismic risk categories, as developed by the National Oceanographic and Atmospheric Administration, will be used to rate relative stability.

“*Site*” means the land area upon which a facility is, or is proposed to be, physically located, including but not limited to adjacent land use for utility systems such as repair, storage, processing, or other areas incident to the facility or operation.

“*Siting authority*” means the party with the specific authority to select sites for facilities.

“*Transportation routes*” means any public all-weather hard-surfaced road with adequate capacity to carry the type and volume of commercial vehicular traffic serving the facility for the entire year with no embargoes, special permits or other restrictions on roads, overpasses or bridges that would prevent transportation to the facility.

“*Utilities and services*” means electricity, gas, water and sewer utilities, and police, fire protection, and emergency medical services.

“*Wetlands*” means any area inundated by surface or groundwater with a frequency sufficient to support, under normal circumstances, a prevalence of vegetation or wildlife requiring saturated or seasonally saturated soil conditions for growth or reproduction. These areas include swamps, marshes, bogs, sloughs, wet meadows, mudflats, sandflats, ponds, lakes, and similar areas.

567—152.3(455B) Siting criteria. The siting authority shall use the following criteria in selecting sites for facilities.

152.3(1) Exclusionary criteria. No facility shall be sited within:

- a. An area of seismic risk category of “4” or greater;
- b. A 100-year floodplain;
- c. A dam hazard area;
- d. An area with less than 100 feet of aquitard between the base of operation and the subjacent aquifer;
- e. One mile of a geologic hazard structure;
- f. One mile of a karst area;
- g. One mile of an area of past or present surface or underground mining activity;
- h. One mile of wetland;
- i. Any protected basin; or
- j. Ten miles of any nuclear power plant.

152.3(2) Quantitative criteria. The quantitative criteria and corresponding values which are to be applied are in Table 1 as follows:

Table 1

	Value Assigned		
	<u>5 points</u>	<u>2 points</u>	<u>Excluded</u>
Mineral and Energy Resources	No significance present within one mile	Significant presence with perpetual ban on recovery	—

Table 1

	Value Assigned		
	<u>5 points</u>	<u>2 points</u>	<u>Excluded</u>
Drinking Water Sources	No sources within one mile	Source permanently closed and alternative water source provided	—
Critical Wildlife Habitats	No habitat within one mile	Permanent buffer and no interference	Interference
Conservation Areas	No area within one mile	Permanent buffer and no interference	Interference
Cultural Areas	No area within one mile	Permanent buffer and no interference	Interference
Population Areas	No area within one mile	Permanent buffer and no interference	Interference
Prime Farmland	Less than 25% prime farmland	More than 25% prime farmland	—
Nonattainment With NAAQS	No significant impact predicted	Little significant impact predicted	—
Prevention of Significant Deterioration	Good data available and sufficient increments	Little data available but increment available	—
Transportation Routes	Within 5 miles of major highway, 10 miles of a rail line, and 50 miles of interstate highway	Beyond 5 miles from major highway, 10 miles of a rail line, or 50 miles from interstate highway	—
Proximity to Major Generators	Within 50 miles of major generators	Beyond 50 miles from generators	—
Utilities and Services	Accessible services available	Sites needing services extended	—

152.3(3) Methodology. The methodology to be used by the siting authority in applying these criteria is contained in the report “Hazardous Waste Management Facility Siting Criteria and Methodology, August 1987” which is adopted by reference. The criteria listed in this rule shall be applied in three steps as follows:

a. Step 1. The exclusionary criteria shall be applied to the entire state. Step 2 shall be applied to those areas remaining.

b. Step 2. The quantitative criteria shall be applied to the nonexcluded areas identified in Step 1. The values in Table 1 shall be applied and the potential sites ranked in order of priority.

c. Step 3. The top rated potential sites shall be subject to detailed evaluation. The best site for the facility shall be selected.

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