

15A NCAC 13C .0202 GROUNDWATER MIGRATION

(a) The potential for groundwater contamination is based upon route characteristics, waste containment, and waste characteristics. The score for groundwater migration shall be determined by multiplying the score determined for route characteristics in Paragraph (b) by the score determined for waste containment in Paragraph (c) then multiplying that result by the score determined for waste characteristics in Paragraph (d) and dividing that result by 14.82.

(b) A score for route characteristics shall be determined by adding the values assigned in Subparagraphs (b)(1) through (b)(4).

- (1) A value shall be assigned for depth to water table using either Table 1 if depth to water table is known or Table 2 if depth to water table is unknown. Depth to water table is measured vertically from the lowest point of the hazardous substances to the highest seasonal level of the water table.

Table 1

Depth	Assigned Value
>150 feet	0
> 75 to 150 feet	2
> 20 to 75 feet	4
< 20 feet	6
Contaminant in groundwater	8
Contaminant in drinking supply	10

Table 2

Location	Assigned Value
Piedmont and Mountain	4
Coastal Plain	4
Alluvial Valley	6

- (2) A value shall be assigned for net precipitation using Table 3. Net precipitation shall be calculated by subtracting the mean annual lake evaporation from the mean annual precipitation.

Table 3

Net Precipitation	Assigned Value
< -10 inches	0
> -10 to +5 inches	1
> +5 to +15 inches	2
> +15 inches	3

- (3) A value shall be assigned for hydraulic conductivity using Table 4 when data for hydraulic conductivity are available, and using Table 5 when hydraulic conductivity data are unavailable and soil and rock types are unknown. When hydraulic conductivity data are unavailable but soil and rock types are known, a value shall be assigned for hydraulic conductivity using the table entitled "Permeability of Geologic Materials" that is contained in 40 CFR 300, Appendix A, July 1, 1988, which is hereby incorporated by reference and does not include subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Solid Waste Management, Superfund Section, 401 Oberlin Road, Raleigh, North Carolina. Copies may be obtained from the Superfund Section at a cost of ten cents (\$.10) per page.

Table 4

Approximate Range of Hydraulic Conductivity	Assigned Value
< 10-7cm/sec	0
>10-7to 10-5cm/sec	1
>10-5to 10-3cm/sec	2
>10-3cm/sec	3

Table 5

Location	Assigned Value
Triassic basin	1
Piedmont and Mountain	2
Mountain Alluvial Valley or Coastal Plain	3

- (4) A value shall be assigned for physical state using Table 6. Physical state is the state of hazardous substances at the time of disposal. If the site contains hazardous substances or wastes with more than one physical state, the hazardous substance or waste with the highest value shall be used.

Table 6

Physical State	Assigned Value
Solid, consolidated and stabilized	0
Solid, unconsolidated or unstabilized	1
Solid, powder or fine particles	2
Liquid, sludge or gas	3

(c) A score for containment shall be determined by using the table entitled "Containment Value for Ground Water Route," contained in 40 CFR 300, Appendix A, July 1, 1988, which is hereby incorporated by reference and does not include subsequent amendments and editions. If the site has more than one type of containment, the containment with the highest value shall be used.

(d) A score for waste characteristics shall be determined by adding the values assigned in Subparagraphs (d)(1) and (d)(2). In determining a waste characteristics score, the substance with the highest combined toxicity/persistence and waste quantity values shall be used.

- (1) A value for toxicity and persistence shall be assigned using the section entitled "Toxicity and Persistence" contained in 40 CFR 300, Appendix A, July 1, 1988, which is hereby incorporated by reference and does not include subsequent amendments and editions.
- (2) A value for hazardous waste quantity shall be assigned using Table 7 when waste quantity is known, and by assigning a value of five when waste quantity is unknown. Hazardous waste quantity is defined as the amount deposited, not how much would have to be removed to clean up the site. When necessary to convert data to a common unit, conversion shall be as follows: one drum equals seven cubic feet equals 50 gallons equals 500 pounds.

Table 7

Waste Quantity	Assigned Value
None	0
De minimus losses only	1
< 10 pounds	2

> 10 pounds to 100 pounds	3
> 100 pounds to 1000 pounds	4
> 1000 pounds	5
< 10 gallons	3
> 10 gallons to 100 gallons	4
> 100 gallons to 1000 gallons	5
> 1000 gallons	6
< 10 cubic feet	4
> 10 cubic feet to 100 cubic feet	5
> 100 cubic feet to 1000 cubic feet	6
> 1000 cubic feet	7
< 10 drums	5
> 10 drums to 100 drums	6
> 100 drums to 1000 drums	7
> 1000 drums	8

History Note: Authority G.S. 130A-310.2; 130A-310.12;
 Eff. June 1, 1989;
 Amended Eff. July 1, 1993; September 1, 1990;
 Pursuant to G.S. 150B-21.3A, rule is necessary without substantive public interest Eff. June 24,
 2017.