SECTION .0200 - PRIORITIZATION SYSTEM

Rules .0201 - .0205 of Title 15A Subchapter 13C of the North Carolina Administrative Code (T15A.13C .0201 - .0205), have been transferred and recodified from Rules .0201 - .0205 of Title 10 Subchapter 10H of the North Carolina Administrative Code (T10.10H .0201 - .0205), effective April 4, 1990.

15A NCAC 13C .0201 PRIORITIZATION

(a) The Division shall review and evaluate relevant site data for all inactive hazardous substance or waste disposal sites and prioritize those sites using the priority system established in this Section.

(b) Only sites with confirmed contamination or known disposal of hazardous substances shall be scored on the inactive hazardous waste sites priority list. Contamination is confirmed if laboratory analyses show the presence of hazardous substances in groundwater, surface water, air, wastes, or soils at concentrations significantly above background levels. Concentrations are significantly above background if the levels detected are more than 10 times a detected level in the background, or three times the detection limit when the background level is below the detection limit or the background concentration is unknown. Known disposal of hazardous substances shall be defined as:

(1) on-site observations by government officials or their representatives of a release of hazardous substances to the environment;

(2) acknowledgement by a current or previous owner or operator that hazardous substances were disposed on the site; or

(3) documentation in the possession of government officials which indicates a release of hazardous substances to the environment.

(c) A site shall be prioritized based on conditions present at the time of evaluation. All prior removal actions shall be considered.

(d) A site shall be evaluated and receive a separate score in each of the following categories:

(1) potential for groundwater migration,

(2) potential for surface water migration,

(3) potential for air migration, and

(4) potential for direct contact.

(e) A total score for the site shall be determined by taking the square root of the sum of the squares of the scores in the four categories in Paragraph (d) and dividing by two. Prioritization shall be based upon the total score.

History Note: *Authority G.S. A-310.2; A-310.12;*
Eff. June 1, 1989;
Amended Eff. July 1, 1993.

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.

15A NCAC 13C .0203 SURFACE WATER MIGRATION

(a) The potential for surface water contamination is based upon route characteristics, waste containment, and waste characteristics. The score for surface water migration is 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 in Subparagraphs (b)(1) through (b)(4).

(1) A value shall be assigned for facility slope and intervening terrain using the table entitled "Values for Facility Slope and Intervening Terrain," 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.

(2) A value shall be assigned for one-year 24-hour rainfall using Table 8. The amount of rainfall shall be determined using Figure 1, entitled "24-hour rainfall", in 40 CFR 300, Appendix A, July 1, 1988, which is hereby incorporated by reference and does not include subsequent amendments and editions.

Table 8

One-Year 24-hour Rainfall Amount (inches)	Assigned Value
< 2.5	0
> 2.5 to 3.0	1
> 3.0 to 3.5	2
> 3.5	3

(3) A value shall be assigned for distance to nearest surface water using Table 9. Distance to the nearest surface water shall be determined by measuring the shortest distance from the hazardous substance (not the facility or property boundary) to the nearest downhill body of surface water that is on the course that run-off can be expected to follow.

Table 9

Distance	Assigned Value
> 2 miles	0
> 1 to 2 miles	2
> 1000 feet to 1 mile	4
> 200 feet to 1000 feet	6
< 200 feet or contaminant in surface water or sediment	8
Contaminant in surface water or sediment at a drinking water intake	10

(4) A value for physical state shall be assigned as determined in Rule .0202(b)(4) of this Section.

(c) A score for containment shall be determined by using the table entitled "Containment Values for Surface 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 assigned as determined in Rule .0202(d) of this Section.

History Note: *Authority G.S. 130A-310.2; 130A-310.12;*
Eff. June 1, 1989;
Amended Eff. July 1, 1993; November 1, 1989.

15A NCAC 13C .0204 AIR MIGRATION

A score for air migration shall be determined by using Section 5.0 entitled "Air 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. 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. However, Section 5.1 entitled "Observed Release" contained in 40 CFR 300, Appendix A, is not adopted by reference. A score for air migration shall be determined by multiplying the score determined for waste characteristics in Section 5.2 of 40 CFR 300, Appendix A, by the score determined for targets in Section 5.3 of 40 CFR 300, Appendix A, and dividing that result by 7.8.

History Note: *Authority G.S. 130A-310.3; 130A-310.12;*
Eff. June 1, 1989;
Amended Eff. July 1, 1993; September 1, 1990.

15A NCAC 13C .0205 DIRECT CONTACT

(a) A direct contact score shall be determined by adding the score for residential population determined in Paragraph (b), and the score for nearby population determined in Paragraph (c), and dividing the result by 18.

(b) A score for residential population shall be determined by multiplying the value for toxicity assigned in Subparagraph (b)(1) by the value for targets assigned in Subparagraph (b)(2).

(1) A value for toxicity shall be assigned by multiplying by three the value for toxicity as assigned in Rule .0202(d)(1) of this Section.

(2) A value for residential targets shall be assigned by adding the value for high risk population assigned in Subparagraph (b)(2)(A) and the value for total resident population assigned in Subparagraph (b)(2)(B) and the value for sensitive environment assigned in Subparagraph (b)(2)(C), with a maximum value of 100. In order to evaluate residential targets, there must be confirmed contamination within the property boundaries of a residence or school or day-care center, or within the boundaries of a sensitive environment.

(A) A value for high risk population shall be assigned by multiplying the resident children, age six and under, by eight.

(B) A value for total resident population shall be assigned by multiplying the total resident population by two.

(C) A value for sensitive environments shall be assigned using Table 10.

Table 10

Sensitive Environment	Assigned Value
Critical habitat for federally designated endangered or threatened species	25
National park	25
Designated federal wilderness area habitat known to be used by federally designated (or proposed) threatened or endangered species	20
National preserve	20
National or State wildlife refuge	20
Federal land designated for protection of natural ecosystems	20
Administration proposed federal wilderness area	20
Habitat known to be used by State-designated endangered or threatened species	15
Habitat known to be used by species under review as to its federally designated threatened and endangered status	15
State lands designated for wildlife or game management	10

(c) A score for nearby population shall be determined by multiplying the value for likelihood of exposure assigned in Subparagraph (c)(1) by the value for toxicity assigned in Subparagraph (c)(2) and multiplying that result by the value for nearby targets assigned in Subparagraph (c)(3). The nearby population consists of individuals who live or go to school within one mile of an area containing contaminated soils or wastes.

(1) A value for likelihood of exposure shall be assigned by using the area of contamination value assigned in Table 11 and the accessibility/frequency of use value assigned in Table 12 to arrive at the value assigned in Table 13.

Table 11

Total Area of Contamination	Assigned Value
No contamination	0
< 1 acre	25

> 1 acre to 5 acres	50
> 5 acres to 10 acres	75
> 10 acres	100

Table 12

Accessibility/Frequency of Use	Assigned Value
Observed contamination on residential property or on property of a park, playground, school, or other area designated for use by the public.	100
Observed contamination on land with no continuous barrier to entry, a barrier that has been breached; or land where there are clear indications of human activity (i.e., footprints).	75
Observed contamination on land either protected by a continuous and effective barriers to entry, or monitored by 24-hour surveillance.	50
Observed contamination on land protected by a continuous and effective barrier to entry and 24-hour surveillance.	25
Presence of an artificial barrier and a natural barrier that combine to restrict access to hazardous substances by completely surrounding the facility; and a means to control entry, at all times, through gates or other entrances to the facility.	5

(2) A value for toxicity shall be assigned by multiplying by three the value for toxicity as assigned in Rule .0202(d)(1) of this Section.

(3) A value for nearby targets shall be assigned by multiplying the population within 1/2 mile of the site by 0.1, and adding the result of multiplying 0.05 by the population between 1/2 and 1 mile of the site, with a maximum total value of 100.

Table 13

Area of Contamination Value	Accessibility/Frequency of Use Value				
	100	75	50	25	5
100	1	1	0.75	0.5	0.25
75	1	0.75	0.5	0.25	0.1
50	0.75	0.5	0.25	0.1	0
25	0.5	0.25	0.1	0	0
No Confirmed Contamination	0	0	0	0	0

History Note: *Authority G.S. 130A-310.2; 130A-310.12;*
Eff. June 1, 1989;
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