

1 15A NCAC 02D .1104 is amended with changes as published in 28:04 NCR 333-335 as follows:

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3 **15A NCAC 02D .1104 TOXIC AIR POLLUTANT GUIDELINES**

4 A facility shall not emit any of the following toxic air pollutants in such quantities that may cause or contribute
5 beyond the premises (adjacent property boundary) to any significant ambient air concentration that may adversely
6 affect human health. In determining these significant ambient air concentrations, the Division shall be guided by the
7 following list of acceptable ambient levels in milligrams per cubic meter at 77° F (25° C) and 29.92 inches (760
8 mm) of mercury pressure (except for asbestos):

9

| Pollutant (CAS Number) | Annual (Carcinogens) | 24-hour (Chronic Toxicants) | 1-hour (Acute Systemic Toxicants) | 1-hour (Acute Irritants) |
|--|---|-----------------------------------|--|--------------------------------|
| acetaldehyde (75-07-0) | | | | 27 |
| acetic acid (64-19-7) | | | | 3.7 |
| acrolein (107-02-8) | | | | 0.08 |
| acrylonitrile (107-13-1) | | 0.03 | 1 | |
| ammonia (7664-41-7) | | | | 2.7 |
| aniline (62-53-3) | | | 1 | |
| arsenic and inorganic arsenic compounds | 2.3×10^{-7} | | | |
| asbestos (1332-21-4) | 2.8×10^{-11} <u>$2.8 \times$</u> <u>10^{-6}</u> fibers/ml | | | |
| aziridine (151-56-4) | | 0.006 | | |
| benzene (71-43-2) | 1.2×10^{-4} | | | |
| benzidine and salts (92-87-5) | 1.5×10^{-8} | | | |
| benzo(a)pyrene (50-32-8) | 3.3×10^{-5} | | | |
| benzyl chloride (100-44-7) | | | 0.5 | |
| beryllium (7440-41-7) | 4.1×10^{-6} | | | |
| beryllium chloride (7787-47-5) | 4.1×10^{-6} | | | |
| beryllium fluoride (7787-49-7) | 4.1×10^{-6} | | | |
| beryllium nitrate (13597-99-4) | 4.1×10^{-6} | | | |
| bioavailable chromate pigments, as chromium (VI) equivalent | 8.3×10^{-8} | | | |
| bis-chloromethyl ether (542-88-1) | 3.7×10^{-7} | | | |

| Pollutant (CAS Number) | Annual (Carcinogens) | 24-hour (Chronic Toxicants) | 1-hour (Acute Systemic Toxicants) | 1-hour (Acute Irritants) |
|---|-------------------------|-----------------------------------|--|--------------------------------|
| bromine (7726-95-6) | | | | 0.2 |
| 1,3-butadiene (106-99-0) | 4.4×10^{-4} | | | |
| cadmium (7440-43-9) | 5.5×10^{-6} | | | |
| cadmium acetate (543-90-8) | 5.5×10^{-6} | | | |
| cadmium bromide (7789-42-6) | 5.5×10^{-6} | | | |
| carbon disulfide (75-15-0) | | 0.186 | | |
| carbon tetrachloride (56-23-5) | 6.7×10^{-3} | | | |
| chlorine (7782-50-5) | | 0.0375 | | 0.9 |
| chlorobenzene (108-90-7) | | 2.2 | | |
| chloroform (67-66-3) | 4.3×10^{-3} | | | |
| chloroprene (126-99-8) | | 0.44 | 3.5 | |
| cresol (1319-77-3) | | | 2.2 | |
| p-dichlorobenzene (106-46-7) | | | | 66 |
| dichlorodifluoromethane (75-71-8) | | 248 | | |
| dichlorofluoromethane (75-43-4) | | 0.5 | | |
| di(2-ethylhexyl)phthalate (117-81-7) | | 0.03 | | |
| dimethyl sulfate (77-78-1) | | 0.003 | | |
| 1,4-dioxane (123-91-1) | | 0.56 | | |
| epichlorohydrin (106-89-8) | 8.3×10^{-2} | | | |
| ethyl acetate (141-78-6) | | | 140 | |
| ethylenediamine (107-15-3) | | 0.3 | 2.5 | |
| ethylene dibromide (106-93-4) | 4.0×10^{-4} | | | |
| ethylene dichloride (107-06-2) | 3.8×10^{-3} | | | |
| ethylene glycol monoethyl ether (110-80-5) | | 0.12 | 1.9 | |
| ethylene oxide (75-21-8) | 2.7×10^{-5} | | | |
| ethyl mercaptan (75-08-1) | | | 0.1 | |
| fluorides | | 0.016 | 0.25 | |
| formaldehyde (50-00-0) | | | | 0.15 |
| hexachlorocyclopentadiene (77-47-4) | | 0.0006 | 0.01 | |
| hexachlorodibenzo-p-dioxin | 7.6×10^{-8} | | | |

| Pollutant (CAS Number) | Annual (Carcinogens) | 24-hour (Chronic Toxicants) | 1-hour (Acute Systemic Toxicants) | 1-hour (Acute Irritants) |
|---|-------------------------|-----------------------------------|--|--------------------------------|
| (57653-85-7) | | | | |
| n-hexane (110-54-3) | | 1.1 | | |
| hexane isomers except n-hexane | | | | 360 |
| hydrazine (302-01-2) | | 0.0006 | | |
| hydrogen chloride (7647-01-0) | | | | 0.7 |
| hydrogen cyanide (74-90-8) | | 0.14 | 1.1 | |
| hydrogen fluoride (7664-39-3) | | 0.03 | | 0.25 |
| hydrogen sulfide (7783-06-4) | | 0.12 | | |
| maleic anhydride (108-31-6) | | 0.012 | 0.1 | |
| manganese and compounds | | 0.031 | | |
| manganese cyclopentadienyl tricarbonyl (12079-65-1) | | 0.0006 | | |
| manganese tetroxide (1317-35-7) | | 0.0062 | | |
| mercury, alkyl | | 0.00006 | | |
| mercury, aryl and inorganic compounds | | 0.0006 | | |
| mercury, vapor (7439-97-6) | | 0.0006 | | |
| methyl chloroform (71-55-6) | | 12 | | 245 |
| methylene chloride (75-09-2) | 2.4×10^{-2} | | 1.7 | |
| methyl ethyl ketone (78-93-3) | | 3.7 | | 88.5 |
| methyl isobutyl ketone (108-10-1) | | 2.56 | | 30 |
| methyl mercaptan (74-93-1) | | | 0.05 | |
| nickel carbonyl (13463-39-3) | | 0.0006 | | |
| nickel metal (7440-02-0) | | 0.006 | | |
| nickel, soluble compounds, as nickel | | 0.0006 | | |
| nickel subsulfide (12035-72-2) | 2.1×10^{-6} | | | |
| nitric acid (7697-37-2) | | | | 1 |
| nitrobenzene (98-95-3) | | 0.06 | 0.5 | |
| n-nitrosodimethylamine (62-75-9) | 5.0×10^{-5} | | | |
| non-specific chromium (VI) compounds, as chromium (VI) | 8.3×10^{-8} | | | |

| Pollutant (CAS Number) | Annual (Carcinogens) | 24-hour (Chronic Toxicants) | 1-hour (Acute Systemic Toxicants) | 1-hour (Acute Irritants) |
|---|-------------------------|-----------------------------------|--|--------------------------------|
| equivalent | | | | |
| pentachlorophenol (87-86-5) | | 0.003 | 0.025 | |
| perchloroethylene (127-18-4) | 1.9×10^{-1} | | | |
| phenol (108-95-2) | | | 0.95 | |
| phosgene (75-44-5) | | 0.0025 | | |
| phosphine (7803-51-2) | | | | 0.13 |
| polychlorinated biphenyls (1336-36-3) | 8.3×10^{-5} | | | |
| soluble chromate compounds, as chromium (VI) equivalent | | 6.2×10^{-4} | | |
| styrene (100-42-5) | | | 10.6 | |
| sulfuric acid (7664-93-9) | | 0.012 | 0.1 | |
| tetrachlorodibenzo-p-dioxin (1746-01-6) | 3.0×10^{-9} | | | |
| 1,1,1,2-tetrachloro-2,2,- difluoroethane (76-11-9) | | 52 | | |
| 1,1,2,2-tetrachloro-1,2- difluoroethane (76-12-0) | | 52 | | |
| 1,1,2,2-tetrachloroethane (79-34-5) | 6.3×10^{-3} | | | |
| toluene (108-88-3) | | 4.7 | | 56 |
| toluene diisocyanate, 2,4- (584-84-9) and 2,6- (91-08-7) isomers | | 0.0002 | | |
| trichloroethylene (79-01-6) | 5.9×10^{-2} | | | |
| trichlorofluoromethane (75-69-4) | | | 560 | |
| 1,1,2-trichloro-1,2,2- trifluoroethane (76-13-1) | | | | 950 |
| vinyl chloride (75-01-4) | 3.8×10^{-4} | | | |
| vinylidene chloride (75-35-4) | | 0.12 | | |
| xylene (1330-20-7) | | 2.7 | | 65 |

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2 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3),(4),(5); 143B-282; S.L. 1989, c. 168, s. 45;

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Eff. May 1, 1990;
Amended Eff. September 1, 1992; March 1, 1992;
Temporary Amendment Eff. July 20, 1997;
Amended Eff. May 1, 2014; March 1, 2010; June 1, 2008; April 1, 2005; April 1, 2001; July 1,
1998.

1 15A NCAC 02Q .0701 is amended as published in 28:04 NCR 335 as follows:

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3 **15A NCAC 02Q .0701 APPLICABILITY**

4 ~~(a)~~ With the exceptions in Rule .0702 of this Section, no person shall cause or allow any toxic air pollutant named
5 in 15A NCAC 02D .1104 to be emitted from any facility into the atmosphere at a rate that exceeds the applicable
6 rate(s) in Rule .0711 of this Section without having received a permit to emit toxic air pollutants as follows:

7 (1) new facilities according to Rule .0704 of this Section; or

8 ~~(2) existing facilities according to Rule .0705 of this Section;~~

9 ~~(3)~~(2) modifications according to Rule .0706 of this Section.

10 ~~(b) The Division shall assess risks from all existing exempt combustion sources using exposure and risk assessment~~
11 ~~methodologies and information and report findings to the EMC no later than July 1, 2014, and every five years~~
12 ~~thereafter. Based on these findings, the EMC shall determine if amendments to this Section are appropriate and~~
13 ~~necessary.~~

14 ~~(c) Facilities required to comply with MACT standards under 15A NCAC 02D .1109, .1111, or .1112 or 40 CFR~~
15 ~~Part 63 shall be deemed in compliance with this Subchapter and 15A NCAC 02D .1100 unless the Division~~
16 ~~determines that modeled emissions result in one or more acceptable ambient levels in 15A NCAC 02D .1104 being~~
17 ~~exceeded. This review shall be made according to the procedures in 15A NCAC 02D .1106. Once a facility~~
18 ~~demonstrates compliance with the acceptable ambient levels in 15A NCAC 02D .1104, future demonstrations shall~~
19 ~~only be required on a five year basis. When an acceptable ambient level for a toxic air pollutant in 15A NCAC 02D~~
20 ~~.1104 is changed, any condition that has previously been put in a permit to protect the previous acceptable ambient~~
21 ~~level for that toxic air pollutant shall not be changed until the permit is renewed, at which time the owner or operator~~
22 ~~of the facility shall submit an air toxic evaluation showing that the new acceptable ambient level will not be~~
23 ~~exceeded.~~

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25 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;
26 Rule originally codified as part of 15A NCAC 2H .0610;
27 Eff. July 1, 1998;
28 Amended Eff. May 1, 2014; July 10, 2010; February 1, 2005.

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1 15A NCAC 02Q .0702 is amended with changes as published in 28:04 NCR 335-337 as follows:

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3 **15A NCAC 02Q .0702 EXEMPTIONS**

4 (a) A permit to emit toxic air pollutants shall not be required under this Section for:

- 5 (1) residential wood stoves, heaters, or fireplaces;
- 6 (2) hot water heaters that are used for domestic purposes only and are not used to heat process water;
- 7 (3) maintenance, structural changes, or repairs that do not change capacity of that process, fuel-
8 burning, refuse-burning, or control equipment, and do not involve any change in quality or nature
9 or increase in quantity of emission of any regulated air pollutant or toxic air pollutant;
- 10 (4) housekeeping activities or building maintenance procedures, including painting buildings,
11 resurfacing floors, roof repair, washing, portable vacuum cleaners, sweeping, use and associated
12 storage of janitorial products, or non-asbestos bearing insulation removal;
- 13 (5) use of office supplies, supplies to maintain copying equipment, or blueprint machines;
- 14 (6) paving parking lots;
- 15 (7) replacement of existing equipment with equipment of the same size, type, and function if the new
16 equipment:
 - 17 (A) does not result in an increase to the actual or potential emissions of any regulated air
18 pollutant or toxic air pollutant;
 - 19 (B) does not affect compliance status; and
 - 20 (C) fits the description of the existing equipment in the permit, including the application,
21 such that the replacement equipment can be operated under that permit without any
22 changes to the permit;
- 23 (8) comfort air conditioning or comfort ventilation systems that do not transport, remove, or exhaust
24 regulated air pollutants to the atmosphere;
- 25 (9) equipment used for the preparation of food for direct on-site human consumption;
- 26 (10) non-self-propelled non-road engines, except generators, regulated by rules adopted by the
27 Environmental Protection Agency under Title II of the federal Clean Air Act;
- 28 (11) stacks or vents to prevent escape of sewer gases from domestic waste through plumbing traps;
- 29 (12) use of fire fighting equipment;
- 30 (13) the use for agricultural operations by a farmer of fertilizers, pesticides, or other agricultural
31 chemicals containing one or more of the compounds listed in 15A NCAC 02D .1104 if such
32 compounds are applied according to agronomic practices acceptable to the North Carolina
33 Department of Agriculture;
- 34 (14) asbestos demolition and renovation projects that comply with 15A NCAC 02D .1110 and that are
35 being done by persons accredited by the Department of Health and Human Services under the
36 Asbestos Hazard Emergency Response Act;

- 1 (15) incinerators used only to dispose of dead animals or poultry as identified in 15A NCAC 02D
2 .1201(c)(4) or incinerators used only to dispose of dead pets as identified in 15A NCAC 02D
3 .1208(a)(2)(A);
- 4 (16) refrigeration equipment that is consistent with Section 601 through 618 of Title VI (Stratospheric
5 Ozone Protection) of the federal Clean Air Act, 40 CFR Part 82, and any other regulations
6 promulgated by EPA under Title VI for stratospheric ozone protection, except those units used as
7 or with air pollution control equipment;
- 8 (17) laboratory activities:
- 9 (A) bench-scale, on-site equipment used exclusively for chemical or physical analysis for
10 quality control purposes, staff instruction, water or wastewater analyses, or non-
11 production environmental compliance assessments;
- 12 (B) bench scale experimentation, chemical or physical analyses, training or instruction from
13 nonprofit, non-production educational laboratories;
- 14 (C) bench scale experimentation, chemical or physical analyses, training or instruction from
15 hospital or health laboratories pursuant to the determination or diagnoses of illnesses; and
- 16 (D) research and development laboratory activities that are not required to be permitted under
17 Section .0500 of this Subchapter provided the activity produces no commercial product
18 or feedstock material;
- 19 (18) combustion sources as defined in ~~15A NCAC 02Q Rule~~ .0703 of this Section except new or
20 modified combustion sources permitted on or after July 10, ~~2010~~ 2010;
- 21 ~~The DAQ shall review and recommend to the EMC no later than July 1, 2014, and every five years~~
22 ~~thereafter, whether the exemption shall remain in place or be removed.~~
- 23 (19) storage tanks used only to store:
- 24 (A) inorganic liquids with a true vapor pressure less than 1.5 pounds per square inch absolute;
- 25 (B) fuel oils, kerosene, diesel, crude oil, used motor oil, lubricants, cooling oils, natural gas,
26 liquefied petroleum gas, or petroleum products with a true vapor pressure less than 1.5
27 pounds per square inch absolute;
- 28 (20) dispensing equipment used solely to dispense diesel fuel, kerosene, lubricants or cooling oils;
- 29 (21) portable solvent distillation systems that are exempted under ~~15A NCAC 02Q .0102(c)(1)(I)~~ Rule
30 .0102(c)(1)(I) of this Subchapter;
- 31 (22) processes:
- 32 (A) electric motor burn-out ovens with secondary combustion chambers or afterburners;
- 33 (B) electric motor bake-on ovens;
- 34 (C) burn-off ovens for paint-line hangers with afterburners;
- 35 (D) hosiery knitting machines and associated lint screens, hosiery dryers and associated lint
36 screens, and hosiery dyeing processes where bleach or solvent dyes are not used;
- 37 (E) blade wood planers planing only green wood;

- 1 (F) saw mills that saw no more than 2,000,000 board feet per ~~year~~ year, provided only green
2 wood is sawed;
- 3 (G) perchloroethylene drycleaning processes with 12-month rolling total consumption of:
4 (i) less than 1366 gallons of perchloroethylene per year for facilities with dry-to-
5 dry machines only;
6 (ii) less than 1171 gallons of perchloroethylene per year for facilities with transfer
7 machines only; or
8 (iii) less than 1171 gallons of perchloroethylene per year for facilities with both
9 transfer and dry-to-dry machines;
- 10 (23) wood furniture manufacturing operations as defined in 40 CFR 63.801(a) that comply with the
11 emission limitations and other requirements of 40 CFR Part 63 Subpart JJ, provided that the terms
12 of this exclusion shall not affect the authority of the Director under 15A NCAC 02Q .0712; Rule
13 .0712 of this Section;
- 14 (24) wastewater treatment systems at pulp and paper mills for hydrogen sulfide and methyl mercaptan
15 only;
- 16 ~~(25)~~ natural gas and propane fired combustion sources with an aggregate allowable heat input value
17 less than 450 million Btu per hour that are the only source of benzene at the facility;
- 18 ~~(26)~~ emergency engines with an aggregate total horsepower less than 4843 horsepower that are the only
19 source of formaldehyde at the facility;
- 20 ~~(27)~~ an air emission source that is any of the following:
21 (A) subject to an applicable requirement under 40 CFR Part 61, as amended;
22 (B) an affected source under 40 CFR Part 63, as amended; or
23 (C) subject to a case-by-case MACT permit requirement issued by the Division pursuant to
24 Paragraph (j) of 42 U.S.C. Section 7412, as amended;
- 25 ~~(25)~~~~(28)~~ gasoline dispensing facilities or gasoline service station operations that comply with 15A NCAC
26 02D .0928 and .0932 and that receive gasoline from bulk gasoline plants or bulk gasoline
27 terminals that comply with 15A NCAC 02D .0524, .0925, .0926, .0927, .0932, and .0933 via tank
28 trucks that comply with 15A NCAC 02D .0932;
- 29 ~~(26)~~~~(29)~~ the use of ethylene oxide as a sterilant in the production and subsequent storage of medical devices
30 or the packaging and subsequent storage of medical devices for sale if the emissions from all new
31 and existing sources at the facility described in 15A NCAC 02D .0538(d) are controlled at least to
32 the degree described in 15A NCAC 02D .0538(d) and the facility complies with 15A NCAC 02D
33 .0538(e) and (f);
- 34 ~~(27)~~~~(30)~~ bulk gasoline plants, including the storage and handling of fuel oils, kerosenes, and jet fuels but
35 excluding the storage and handling of other organic liquids, that comply with 15A NCAC 02D
36 .0524, .0925, .0926, .0932, and .0933; unless the Director finds that a permit to emit toxic air

1 pollutants is required under Paragraph (b) of this Rule or Rule .0712 of this Section for a particular
2 bulk gasoline plant; or

3 ~~(28)~~(31) bulk gasoline terminals, including the storage and handling of fuel oils, kerosenes, and jet fuels
4 but excluding the storage and handling of other organic liquids, that comply with 15A NCAC 02D
5 .0524, .0925, .0927, .0932, and .0933 if the bulk gasoline terminal existed before November
6 1, ~~1992~~; 1992, unless:

7 (A) the Director finds that a permit to emit toxic air pollutants is required under Paragraph (b)
8 of this Rule or Rule .0712 of this Section for a particular bulk gasoline ~~terminal~~, terminal;
9 or

10 (B) the owner or operator of the bulk gasoline terminal meets the requirements of 15A NCAC
11 02D .0927(i).

12 (b) Emissions from the activities identified in Subparagraphs ~~(a)(25)(a)(28)~~ through ~~(a)(28)(a)(31)~~ of this Rule shall
13 be included in determining compliance with the toxic air pollutant requirements in this Section and shall be included
14 in the permit if necessary to assure compliance. Emissions from the activities identified in Subparagraphs (a)(1)
15 through ~~(a)(24)(a)(27)~~ of this Rule shall not be included in determining compliance with the toxic air pollutant
16 requirements in this Section provided that the terms of this exclusion shall not affect the authority of the Director
17 under Rule .0712 of this Section.

18 (c) The addition or modification of an activity identified in Paragraph (a) of this Rule shall not cause the source or
19 facility to be evaluated for emissions of toxic air pollutants.

20 (d) ~~Because an activity is exempted from being required to have a permit does not mean that the activity is~~
21 ~~exempted~~ An activity that is exempt from being permitted under this Section is not exempt from any applicable
22 requirement or that the owner or operator of the source is exempted from demonstrating compliance with any
23 applicable requirement.

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25 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;
26 Rule originally codified as part of 15A NCAC 02H .0610;
27 Eff. July 1, 1998;
28 Amended Eff. May 1, 2014; July 10, 2010; April 1, 2005; July 1, 2002; July 1, 2000.

1 15A NCAC 02Q .0703 is amended with changes as published in 28:04 NCR 337-339 as follows:

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3 **15A NCAC 02Q .0703 DEFINITIONS**

4 For the purposes of this Section, the following definitions apply:

5 (1) "Actual rate of emissions" means:

6 (a) for existing sources:

7 (i) for toxic air pollutants with an annual averaging period, the average rate or rates
8 at which the source actually emitted the pollutant during the two-year period
9 preceding the date of the particular modification and that represents normal
10 operation of the source. If this period does not represent normal operation, the
11 Director may allow the use of a different, more representative, period.

12 (ii) for toxic air pollutants with a 24-hour or one-hour averaging period, the
13 maximum actual emission rate at which the source actually emitted for the
14 applicable averaging period during the two-year period preceding the date of the
15 particular modification and that represents normal operation of the source. If
16 this period does not represent normal operation, the Director may require or
17 allow the use of a different, more representative, period.

18 (b) for new or modified sources, the average rate or rates, determined for the applicable
19 averaging period(s), that the proposed source will actually emit the pollutant as
20 determined by engineering evaluation.

21 (2) "Applicable averaging period" means the averaging period for which an acceptable ambient limit
22 has been established by the Commission ~~and is listed~~ in Rule 15A NCAC 02D .1104.

23 (3) "Bioavailable chromate pigments" means the group of chromium (VI) compounds consisting of
24 calcium chromate (CAS No.13765-19-0), calcium dichromate (CAS No. 14307-33-6), strontium
25 chromate (CAS No. 7789-06-2), strontium dichromate (CAS No. 7789-06-2), zinc chromate (CAS
26 No. 13530-65-9), and zinc dichromate (CAS No. 7789-12-0).

27 (4) "CAS Number" means the Chemical Abstract Service registry number identifying a particular
28 substance.

29 (5) "Chromium (VI) equivalent" means the molecular weight ratio of the chromium (VI) portion of a
30 compound to the total molecular weight of the compound multiplied by the associated compound
31 emission rate or concentration at the facility.

32 (6) "Combustion sources" means boilers, space heaters, process heaters, internal combustion engines,
33 and combustion turbines, which burn only ~~unadulterated~~ wood or unadulterated fossil fuel. It does
34 not include incinerators, waste combustors, kilns, dryers, or direct heat exchange industrial
35 processes.

- 1 (7) "Creditable emissions" means actual decreased emissions that have not been previously relied on
2 to comply with Subchapter 15A NCAC 02D. All credible emissions shall be enforceable by
3 permit condition.
- 4 (8) "Cresol" means o-cresol, p-cresol, m-cresol, or any combination of these compounds.
- 5 (9) "Evaluation" means:
- 6 (a) a determination that the emissions from the facility, including emissions from sources
7 exempted by Rule ~~.0702(a)(24)~~ .0702(a)(28) through ~~(27)(31)~~ of this Section, are less
8 than the rate listed in Rule .0711 of this Section; or
- 9 (b) a determination of ambient air concentrations as described under 15A NCAC 02D .1106,
10 including emissions from sources exempted by Rule ~~.0702—(24)~~ .0702(a)(28)
11 through ~~(27)(31)~~ of this Section.
- 12 (10) "GACT" means any generally available control technology emission standard applied to an area
13 source or facility pursuant to Section 112 of the federal Clean Air Act.
- 14 (11) "Hexane isomers except n-hexane" means 2-methyl pentane, 3-methyl pentane, 2,2-dimethyl
15 butane, 2,3-dimethyl butane, or any combination of these compounds.
- 16 (12) "MACT" means any maximum achievable control technology emission standard applied to a
17 source or facility pursuant to Section 112 federal Clean Air Act.
- 18 (13) "Maximum feasible control" means the maximum degree of reduction for each pollutant subject to
19 regulation under this Section using the best technology that is available taking into account, on a
20 case-by-case basis, human health, energy, environmental, and economic impacts and other costs.
- 21 (14) "Modification" means any physical changes or changes in the methods of operation that result in a
22 net increase in emissions or ambient concentration of any pollutant listed in Rule .0711 of this
23 Section or that result in the emission of any pollutant listed in Rule .0711 of this Section not
24 previously emitted.
- 25 (15) "Net increase in emissions" means for a modification the sum of any increases in permitted
26 allowable and decreases in the actual rates of emissions from the proposed modification from the
27 sources at the facility for which the air permit application is being filed. If the net increase in
28 emissions from the proposed modification is greater than zero, all other increases in permitted
29 allowable and decreases in the actual rates of emissions at the facility within five years
30 immediately preceding the filing of the air permit application for the proposed modification that
31 are otherwise creditable emissions may be included.
- 32 (16) "Nickel, soluble compounds" means the soluble nickel salts of chloride (NiCl₂, CAS No. 7718-54-
33 9), sulfate (NiSO₄, CAS No. 7786-81-4), and nitrate (Ni(NO₃)₂, CAS No. 13138-45-9).
- 34 (17) "Non-specific chromium (VI) compounds" means the group of compounds consisting of any
35 chromium (VI) compounds not specified in this Section as a bioavailable chromate pigment or a
36 soluble chromate compound.

- 1 (18) "Polychlorinated biphenyls" means any chlorinated biphenyl compound or mixture of chlorinated
2 biphenyl compounds.
- 3 (19) "Pollution prevention plan" means a written description of current and projected plans to reduce,
4 prevent, or minimize the generation of pollutants by source reduction and recycling and includes a
5 site-wide assessment of pollution prevention opportunities at a facility that addresses sources of air
6 pollution, water pollution, and solid and hazardous waste generation.
- 7 (20) "SIC" means standard industrial classification code.
- 8 (21) "Soluble chromate compounds" means the group of chromium (VI) compounds consisting of
9 ammonium chromate (CAS No. 7788-98-9), ammonium dichromate (CAS No. 7789-09-5),
10 chromic acid (CAS No. 7738-94-5), potassium chromate (CAS No. 7789-00-6), potassium
11 dichromate (CAS No. 7778-50-9), sodium chromate (CAS No. 7775-11-3), and sodium
12 dichromate (CAS No. 10588-01-9).
- 13 (22) "Toxic air pollutant" means any of those carcinogens, chronic toxicants, acute systemic toxicants,
14 or acute irritants listed in 15A NCAC 02D .1104.
- 15 ~~(23) "Unadulterated wood" means wood that is not painted, varnished, stained, oiled, waxed, or
16 otherwise coated or treated with any chemical. Plywood, particle board, and resinated wood are
17 not unadulterated wood.~~

18
19 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;
20 Rule originally codified as part of 15A NCAC 02H .0610;
21 Eff. July 1, 1998;
22 Amended Eff. May 1, 2014; April 1, 2001.

1 15A NCAC 02Q .0704 is amended with changes as published in 28:04 NCR 339 as follows:

2
3 **15A NCAC 02Q .0704 NEW FACILITIES**

4 (a) This Rule applies only to ~~facilities that begin construction after September 30, 1993.~~ new facilities.

5 ~~[(b) The owner or operator of a facility that:~~

6 ~~(1) is required to have a permit because of applicability of a Section in Subchapter 2D of this Chapter~~
7 ~~other than Section .1100 of Subchapter 2D of this Chapter except for facilities whose emissions of~~
8 ~~toxic air pollutants result only from sources exempted under Rule .0102 of this Subchapter;~~

9 ~~(2) has one or more sources subject to a MACT or GACT standard that has previously been~~
10 ~~promulgated under Section 112(d) of the federal Clean Air Act or established under Section 112(e)~~
11 ~~or 112(j) of the Clean Air Act; or~~

12 ~~(3) has a standard industrial classification code that has previously been called under Rule .0705 of~~
13 ~~this Section;~~

14 ~~shall have received a permit to emit toxic air pollutants before beginning construction, and shall comply with such~~
15 ~~permit when beginning operation.]~~

16 (b) The owner or operator of a facility required to have a permit because of applicability of a Section in 15A NCAC
17 02D, other than 15A NCAC 02D, Section .1100, are required to receive a permit to emit toxic air pollutants before
18 beginning construction, and shall comply with the permit when beginning operation. This Paragraph does not apply
19 to facilities whose emissions of toxic air pollutants result only from sources exempted under Rule .0102 of this
20 Subchapter.

21 ~~(c) The owner or operator of a facility subject to this Rule who has not received a permit to emit toxic air pollutants~~
22 ~~under Paragraph (b) of this Rule shall apply for a permit to emit toxic air pollutants according to Paragraph (b) or (c)~~
23 ~~of Rule .0705 of this Section.~~

24 (c) The owner or operator of the facility shall submit a permit application to comply with 15A NCAC 02D .1100 if
25 emissions of any toxic air pollutant exceed the levels contained in Rule .0711 of this Section.

26 (d) The permit application filed pursuant to this Rule shall include an evaluation for all toxic air pollutants ~~covered~~
27 ~~under~~ listed in 15A NCAC 02D .1104. All sources at the facility, excluding sources exempt from evaluation in Rule
28 .0702 of this Section, emitting these toxic air pollutants shall be included in the evaluation.

29
30 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;*
31 *Rule originally codified as part of 15A NCAC 2H .0610;*
32 *Eff. July 1, ~~1998~~, 1998;*
33 *Amended Eff. May 1, 2014.*
34

1 15A NCAC 02Q .0706 is amended with changes as published in 28:04 NCR 340-341 as follows:

2
3 **15A NCAC 02Q .0706 MODIFICATIONS**

4 ~~[(a) For modification of any facility undertaken after September 30, 1993, that:~~

5 ~~(1) is required to have a permit because of applicability of a Section, other than Section .1100, in~~
6 ~~Subchapter 02D of this Chapter except for facilities whose emissions of toxic air pollutants result~~
7 ~~only from insignificant activities as defined in 15A NCAC 02Q .0103(20) or sources exempted~~
8 ~~under Rule .0102 of this Subchapter;~~

9 ~~(2) has one or more sources subject to a MACT or GACT standard that has previously been~~
10 ~~promulgated under Section 112(d) of the federal Clean Air Act or established under Section 112(e)~~
11 ~~or 112(j) of the Clean Air Act; or~~

12 ~~(3) has a standard industrial classification code that has previously been called under Rule .0705 of~~
13 ~~this Section;~~

14 ~~the owner or operator of the facility shall comply with Paragraphs (b) and (c) of this Rule.]~~

15 (a) The owner or operator shall comply with Paragraphs (b) and (c) of this Rule for modification of any facility
16 required to have a permit because of applicability of a Section in 15A NCAC 02D, other than 15A NCAC 02D,
17 Section .1100. This Paragraph does not apply to facilities whose emissions of toxic air pollutants result only from
18 insignificant activities, as defined in Rule .0103(20) of this Subchapter, or sources exempted under Rule .0102 of
19 this Subchapter.

20 (b) The owner or operator of the facility shall submit a permit application to comply with 15A NCAC 02D .1100 if
21 the modification results in:

22 (1) a net increase in emissions or ambient concentration of any toxic air pollutant that the facility was
23 emitting before the modification; or

24 (2) emissions of any toxic air pollutant that the facility was not emitting before the modification if
25 such emissions exceed the levels contained in Rule .0711 of this Section.

26 (c) The permit application filed pursuant to this Rule shall include an evaluation for all toxic air pollutants covered
27 under 15A NCAC 02D .1104 for which there is:

28 (1) a net increase in emissions of any toxic air pollutant that the facility was emitting before the
29 modification; and

30 (2) emission of any toxic air pollutant that the facility was not emitting before the modification if such
31 emissions exceed the levels contained in Rule .0711 of this Section.

32 All sources at the facility, excluding sources exempt from evaluation in Rule .0702 of this Section, emitting these
33 toxic air pollutants shall be included in the evaluation. ~~Notwithstanding 02Q .0702(a)(18), on and after July 10,~~
34 ~~2010, an evaluation of a modification to a combustion source shall also include emissions from all permitted~~
35 ~~combustion sources as defined in 02Q .0703. A permit application filed pursuant to Subparagraph (b)(2) of this~~
36 ~~Rule shall include an evaluation for all toxic air pollutants identified by the Director as causing an acceptable~~
37 ~~ambient level in 15A NCAC 02D .1104 to be exceeded.~~

1 (d) If a source is included in an air toxic evaluation, but is not the source that is being added or modified at the
2 facility, and if the emissions from this source must be reduced in order for the facility to comply with the rules in
3 this Section and 15A NCAC 02D .1100, then the emissions from this source shall be reduced by the time that the
4 new or modified source begins operating such that the facility shall be in compliance with the rules in this Section
5 and 15A NCAC 02D .1100.

6
7 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; ~~S.L. 1989, C. 168, S. 45;~~
8 Rule originally codified as part of 15A NCAC 2H .0610;
9 Eff. July 1, 1998;
10 Amended Eff. May 1, 2014; July 10, 2010; December 1, 2005; April 1, 2005.

1 15A NCAC 02Q .0709 is amended with changes as published in 28:04 NCR 341-342 as follows:

2
3 **15A NCAC 02Q .0709 DEMONSTRATIONS**

4 (a) Demonstrations. The owner or operator of a source who is applying for a permit or permit modification to emit
5 toxic air pollutants shall:

6 (1) demonstrate to the satisfaction of the Director through dispersion modeling that the emissions of
7 toxic air pollutants from the facility will not cause any acceptable ambient level listed in 15A
8 NCAC 02D .1104 to be exceeded beyond the premises (adjacent property boundary); or

9 (2) demonstrate to the satisfaction of the Commission or its delegate that the ambient concentration
10 beyond the premises (adjacent property boundary) for the subject toxic air pollutant shall not
11 adversely affect human health (~~e.g.,~~ e.g. a risk assessment specific to the facility) though the
12 concentration is higher than the acceptable ambient level in 15A NCAC 02D .1104 by providing
13 one of the following demonstrations:

14 (A) the area where the ambient concentrations are expected to exceed the acceptable ambient
15 levels in 15A NCAC 02D .1104 is not inhabitable or occupied for the duration of the
16 averaging time of the pollutant of ~~concern,~~ concern; or

17 (B) new toxicological data that show that the acceptable ambient level in 15A NCAC 02D
18 .1104 for the pollutant of concern is too low and the facility's ambient impact is below the
19 level indicated by the new toxicological data.

20 (b) Technical Infeasibility and Economic Hardship. This Paragraph shall not apply to any incinerator covered
21 under 15A NCAC 02D .1200. The owner or operator of any source constructed before May 1, 1990, or a
22 perchloroethylene dry cleaning facility subject to a GACT standard under 40 CFR 63.320 through 63.325, or a
23 combustion source as defined in Rule .0703 of this Section permitted before July 10, 2010, who cannot supply a
24 demonstration described in Paragraph (a) of this Rule shall:

25 (1) demonstrate to the satisfaction of the Commission or its delegate that complying with the
26 guidelines in 15A NCAC 02D .1104 is technically ~~infeasible (the infeasible, as the~~ technology
27 necessary to reduce emissions to a level to prevent the acceptable ambient levels in 15A NCAC
28 02D .1104 from being exceeded does not ~~exist); exist;~~ or

29 (2) demonstrate to the satisfaction of the Commission or its delegate that complying with the
30 guidelines in 15A NCAC 02D .1104 would result in serious economic hardship. ~~Ha In~~ In deciding if
31 a serious economic hardship exists, the Commission or its delegate shall consider market impact;
32 impacts on local, regional and state economy; risk of closure; capital cost of compliance; annual
33 incremental compliance cost; and environmental and health ~~impacts;~~ impacts.

34 If the owner or operator makes a demonstration to the satisfaction of the Commission or its delegate pursuant to
35 Subparagraphs (1) or (2) of this Paragraph, the Director shall require the owner or operator of the source to apply
36 maximum feasible control. Maximum feasible control shall be in place and operating within three years from the
37 date that the permit is issued for the maximum feasible control.

1 (c) Pollution Prevention Plan. The owner or operator of any facility using the provisions of Part (a)(2)(A) or
2 Paragraph (b) of this Rule shall develop and implement a pollution prevention plan consisting of the
3 following ~~minimum~~ elements:

- 4 (1) statement of corporate and facility commitment to pollution prevention;
- 5 (2) identification of current and past pollution prevention activities;
- 6 (3) timeline and strategy for implementation;
- 7 (4) description of ongoing and planned employee education efforts; ~~and~~
- 8 (5) identification of internal pollution prevention goal selected by the facility and expressed in either
9 qualitative or quantitative terms.

10 ~~The facility shall submit along with the permit application the pollution prevention plan. The facility shall submit~~
11 ~~the pollution plan along with the permit application.~~ The pollution prevention plan shall be maintained on site. A
12 progress report on implementation of the plan shall be prepared by the facility annually and be made available to
13 Division personnel for review upon request.

14 (d) Modeling Demonstration. If the owner or operator of a facility demonstrates by modeling that no toxic air
15 pollutant emitted from the facility exceeds the acceptable ambient level values ~~given set out~~ in 15A NCAC 02D
16 .1104 beyond the facility's premises, further modeling demonstration is not required with the permit application.
17 However, the Commission may still require more stringent emission levels according to its analysis under 15A
18 NCAC 02D .1107.

19 (e) Change in Acceptable Ambient Level. When an acceptable ambient level for a toxic air pollutant in 15A NCAC
20 02D .1104 is changed, any condition that has previously been put in a permit to protect the previous acceptable
21 ambient level for that toxic air pollutant shall not be changed until:

- 22 (1) The permit is renewed, at which time the owner or operator of the facility shall submit an air
23 toxic ~~evaluation~~evaluation, excluding sources exempt from evaluation in Rule .0702 of this
24 Section, showing that the new acceptable ambient level will not be ~~exceeded~~ exceeded. ~~(If~~ If
25 additional time is needed to bring the facility into compliance with the new acceptable ambient
26 level, the owner or operator shall negotiate a compliance schedule with the Director. The
27 compliance schedule shall be written into the facility's permit and final compliance shall not
28 exceed two years from the effective date of the change in the acceptable ambient ~~level); or level;~~
29 or
- 30 (2) The owner or operator of the facility requests that the condition be changed and submits along
31 with that request an air toxic ~~evaluation~~evaluation, excluding sources exempt from evaluation in
32 Rule .0702 of this Section, showing that the new acceptable ambient level shall not be exceeded.

33
34 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282; ~~S.L. 1989, c. 168, s. 45;~~
35 Rule originally codified as part of 15A NCAC 2H .0610;
36 Eff. July 1, 1998;
37 Amended Eff. May 1, 2014; July 10, 2010; February 1, 2005.

1 15A NCAC 02Q .0711 is amended with changes as published in 28:04 NCR 342-347 as follows:

2

3 **15A NCAC 02Q .0711 EMISSION RATES REQUIRING A PERMIT**

4 (a) A permit to emit toxic air pollutants is required for any facility where one or more emission release points are
5 obstructed or non-vertically oriented whose actual (~~or permitted if higher~~) rate of emissions from all sources are
6 greater than any one of the following toxic air pollutant permitting emissions rates:

7

| Pollutant (CAS Number) | Carcinogens | Chronic Toxicants | Acute Systemic Toxicants | Acute Irritants |
|--|--|-------------------|--------------------------|-----------------|
| | lb/yr | lb/day | lb/hr | lb/hr |
| acetaldehyde (75-07-0) | | | | 6.8 |
| acetic acid (64-19-7) | | | | 0.96 |
| acrolein (107-02-8) | | | | 0.02 |
| acrylonitrile (107-13-1) | | 0.4 | 0.22 | |
| ammonia (7664-41-7) | | | | 0.68 |
| aniline (62-53-3) | | | 0.25 | |
| arsenic and inorganic arsenic compounds | 0.016 | | | |
| asbestos (1332-21-4) | 1.9 X 10⁻⁶-5.7 <u>X 10⁻³</u> | | | |
| aziridine (151-56-4) | | 0.13 | | |
| benzene (71-43-2) | 8.1 | | | |
| benzidine and salts (92-87-5) | 0.0010 | | | |
| benzo(a)pyrene (50-32-8) | 2.2 | | | |
| benzyl chloride (100-44-7) | | | 0.13 | |
| beryllium (7440-41-7) | 0.28 | | | |
| beryllium chloride (7787-47-5) | 0.28 | | | |
| beryllium fluoride (7787-49-7) | 0.28 | | | |
| beryllium nitrate (13597-99-4) | 0.28 | | | |
| bioavailable chromate pigments, as chromium (VI) equivalent | 0.0056 | | | |
| bis-chloromethyl ether (542-88-1) | 0.025 | | | |
| bromine (7726-95-6) | | | | 0.052 |
| 1,3-butadiene (106-99-0) | 11 | | | |
| cadmium (7440-43-9) | 0.37 | | | |
| cadmium acetate (543-90-8) | 0.37 | | | |

| | | | | |
|--|--------|-------|--------|-------|
| cadmium bromide (7789-42-6) | 0.37 | | | |
| carbon disulfide (75-15-0) | | 3.9 | | |
| carbon tetrachloride (56-23-5) | 460 | | | |
| chlorine (7782-50-5) | | 0.79 | | 0.23 |
| chlorobenzene (108-90-7) | | 46 | | |
| chloroform (67-66-3) | 290 | | | |
| chloroprene (126-99-8) | | 9.2 | 0.89 | |
| cresol (1319-77-3) | | | 0.56 | |
| p-dichlorobenzene (106-46-7) | | | | 16.8 |
| dichlorodifluoromethane (75-71-8) | | 5200 | | |
| dichlorofluoromethane (75-43-4) | | 10 | | |
| di(2-ethylhexyl)phthalate (117-81-7) | | 0.63 | | |
| dimethyl sulfate (77-78-1) | | 0.063 | | |
| 1,4-dioxane (123-91-1) | | 12 | | |
| epichlorohydrin (106-89-8) | 5600 | | | |
| ethyl acetate (141-78-6) | | | 36 | |
| ethylenediamine (107-15-3) | | 6.3 | 0.64 | |
| ethylene dibromide (106-93-4) | 27 | | | |
| ethylene dichloride (107-06-2) | 260 | | | |
| ethylene glycol monoethyl ether (110-80-5) | | 2.5 | 0.48 | |
| ethylene oxide (75-21-8) | 1.8 | | | |
| ethyl mercaptan (75-08-1) | | | 0.025 | |
| fluorides | | 0.34 | 0.064 | |
| formaldehyde (50-00-0) | | | | 0.04 |
| hexachlorocyclopentadiene (77-47-4) | | 0.013 | 0.0025 | |
| hexachlorodibenzo-p-dioxin (57653- 85-7) | 0.0051 | | | |
| n-hexane (110-54-3) | | 23 | | |
| hexane isomers except n-hexane | | | | 92 |
| hydrazine (302-01-2) | | 0.013 | | |
| hydrogen chloride (7647-01-0) | | | | 0.18 |
| hydrogen cyanide (74-90-8) | | 2.9 | 0.28 | |
| hydrogen fluoride (7664-39-3) | | 0.63 | | 0.064 |
| hydrogen sulfide (7783-06-4) | | 1.7 | | |
| maleic anhydride (108-31-6) | | 0.25 | 0.025 | |
| manganese and compounds | | 0.63 | | |

| | | | | |
|--|---------|--------|--------|-------|
| manganese cyclopentadienyl tricarbonyl (12079-65-1) | | 0.013 | | |
| manganese tetroxide (1317-35-7) | | 0.13 | | |
| mercury, alkyl | | 0.0013 | | |
| mercury, aryl and inorganic compounds | | 0.013 | | |
| mercury, vapor (7439-97-6) | | 0.013 | | |
| methyl chloroform (71-55-6) | | 250 | | 64 |
| methylene chloride (75-09-2) | 1600 | | 0.39 | |
| methyl ethyl ketone (78-93-3) | | 78 | | 22.4 |
| methyl isobutyl ketone (108-10-1) | | 52 | | 7.6 |
| methyl mercaptan (74-93-1) | | | 0.013 | |
| nickel carbonyl (13463-39-3) | | 0.013 | | |
| nickel metal (7440-02-0) | | 0.13 | | |
| nickel, soluble compounds, as nickel | | 0.013 | | |
| nickel subsulfide (12035-72-2) | 0.14 | | | |
| nitric acid (7697-37-2) | | | | 0.256 |
| nitrobenzene (98-95-3) | | 1.3 | 0.13 | |
| n-nitrosodimethylamine (62-75-9) | 3.4 | | | |
| non-specific chromium (VI) compounds, as chromium (VI) equivalent | 0.0056 | | | |
| pentachlorophenol (87-86-5) | | 0.063 | 0.0064 | |
| perchloroethylene (127-18-4) | 13000 | | | |
| phenol (108-95-2) | | | 0.24 | |
| phosgene (75-44-5) | | 0.052 | | |
| phosphine (7803-51-2) | | | | 0.032 |
| polychlorinated biphenyls (1336-36-3) | 5.6 | | | |
| soluble chromate compounds, as chromium (VI) equivalent | | 0.013 | | |
| styrene (100-42-5) | | | 2.7 | |
| sulfuric acid (7664-93-9) | | 0.25 | 0.025 | |
| tetrachlorodibenzo-p-dioxin (1746-01-6) | 0.00020 | | | |
| 1,1,1,2-tetrachloro-2,2,-difluoroethane (76-11-9) | | 1100 | | |
| 1,1,2,2-tetrachloro-1,2-difluoroethane (76-12-0) | | 1100 | | |
| 1,1,2,2-tetrachloroethane (79-34-5) | 430 | | | |

| | | | | |
|---|------|-------|-----|------|
| toluene (108-88-3) | | 98 | | 14.4 |
| toluene diisocyanate,2,4-(584-84-9) and 2,6-(91-08-7) isomers | | 0.003 | | |
| trichloroethylene (79-01-6) | 4000 | | | |
| trichlorofluoromethane (75-69-4) | | | 140 | |
| 1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1) | | | | 240 |
| vinyl chloride (75-01-4) | 26 | | | |
| vinylidene chloride (75-35-4) | | 2.5 | | |
| xylene (1330-20-7) | | 57 | | 16.4 |

1
2 (b) A permit to emit toxic air pollutants is required for any facility where all emission release points are
3 unobstructed and vertically oriented whose actual rate of emissions from all sources are greater than any one of the
4 following toxic air pollutant permitting emissions rates:
5

| <u>Pollutant (CAS Number)</u> | <u>Carcinogens</u> | <u>Chronic Toxicants</u> | <u>Acute Systemic Toxicants</u> | <u>Acute Irritants</u> |
|--|--------------------------------|--------------------------|---------------------------------|------------------------|
| | <u>lb/yr</u> | <u>lb/day</u> | <u>lb/hr</u> | <u>lb/hr</u> |
| <u>acetaldehyde (75-07-0)</u> | | | | <u>28.43</u> |
| <u>acetic acid (64-19-7)</u> | | | | <u>3.90</u> |
| <u>acrolein (107-02-8)</u> | | | | <u>0.08</u> |
| <u>acrylonitrile (107-13-1)</u> | | <u>1.3</u> | <u>1.05</u> | |
| <u>ammonia (7664-41-7)</u> | | | | <u>2.84</u> |
| <u>aniline (62-53-3)</u> | | | <u>1.05</u> | |
| <u>arsenic and inorganic arsenic compounds</u> | <u>0.194</u> | | | |
| <u>asbestos (1332-21-4)</u> | <u>7.748 x 10⁻³</u> | | | |
| <u>aziridine (151-56-4)</u> | | <u>0.3</u> | | |
| <u>benzene (71-43-2)</u> | <u>11.069</u> | | | |
| <u>benzidine and salts (92-87-5)</u> | <u>1.384 x 10⁻³</u> | | | |
| <u>benzo(a)pyrene (50-32-8)</u> | <u>3.044</u> | | | |
| <u>benzyl chloride (100-44-7)</u> | | | <u>0.53</u> | |
| <u>beryllium (7440-41-7)</u> | <u>0.378</u> | | | |
| <u>beryllium chloride (7787-47-5)</u> | <u>0.378</u> | | | |
| <u>beryllium fluoride (7787-49-7)</u> | <u>0.378</u> | | | |
| <u>beryllium nitrate (13597-99-4)</u> | <u>0.378</u> | | | |

| | | | | |
|--|-----------------|------------------------------|---------------|---------------|
| <u>bioavailable chromate pigments, as chromium (VI) equivalent</u> | <u>0.008</u> | | | |
| <u>bis-chloromethyl ether (542-88-1)</u> | <u>0.034</u> | | | |
| <u>bromine (7726-95-6)</u> | | | | <u>0.21</u> |
| <u>1,3-butadiene (106-99-0)</u> | <u>40.585</u> | | | |
| <u>cadmium (7440-43-9)</u> | <u>0.507</u> | | | |
| <u>cadmium acetate (543-90-8)</u> | <u>0.507</u> | | | |
| <u>cadmium bromide (7789-42-6)</u> | <u>0.507</u> | | | |
| <u>carbon disulfide (75-15-0)</u> | | <u>7.8</u> | | |
| <u>carbon tetrachloride (56-23-5)</u> | <u>618.006</u> | | | |
| <u>chlorine (7782-50-5)</u> | | <u>1.6</u> | | <u>0.95</u> |
| <u>chlorobenzene (108-90-7)</u> | | <u>92.7</u> | | |
| <u>chloroform (67-66-3)</u> | <u>396.631</u> | | | |
| <u>chloroprene (126-99-8)</u> | | <u>18.5</u> | <u>3.69</u> | |
| <u>cresol (1319-77-3)</u> | | | <u>2.32</u> | |
| <u>p-dichlorobenzene (106-46-7)</u> | | | | <u>69.50</u> |
| <u>dichlorodifluoromethane (75-71-8)</u> | | <u>10445.4</u> | | |
| <u>dichlorofluoromethane (75-43-4)</u> | | <u>21.1</u> | | |
| <u>di(2-ethylhexyl)phthalate (117-81-7)</u> | | <u>1.3</u> | | |
| <u>dimethyl sulfate (77-78-1)</u> | | <u>0.1</u> | | |
| <u>1,4-dioxane (123-91-1)</u> | | <u>23.6</u> | | |
| <u>epichlorohydrin (106-89-8)</u> | <u>7655.891</u> | | | |
| <u>ethyl acetate (141-78-6)</u> | | | <u>147.41</u> | |
| <u>ethylenediamine (107-15-3)</u> | | <u>12.6</u> | <u>2.63</u> | |
| <u>ethylene dibromide (106-93-4)</u> | <u>36.896</u> | | | |
| <u>ethylene dichloride (107-06-2)</u> | <u>350.511</u> | | | |
| <u>ethylene glycol monoethyl ether (110-80-5)</u> | | <u>5.1</u> | | <u>2.00</u> |
| <u>ethylene oxide (75-21-8)</u> | <u>2.490</u> | | | |
| <u>ethyl mercaptan (75-08-1)</u> | | | <u>0.11</u> | |
| <u>fluorides</u> | | <u>0.7</u> | <u>0.26</u> | |
| <u>formaldehyde (50-00-0)</u> | | | | <u>0.16</u> |
| <u>hexachlorocyclopentadiene (77-47-4)</u> | | <u>2.5 x 10⁻²</u> | <u>0.01</u> | |
| <u>hexachlorodibenzo-p-dioxin (57653- 85-7)</u> | <u>0.007</u> | | | |
| <u>n-hexane (110-54-3)</u> | | <u>46.3</u> | | |
| <u>hexane isomers except n-hexane</u> | | | | <u>379.07</u> |
| <u>hydrazine (302-01-2)</u> | | <u>2.5 x 10⁻²</u> | | |

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| <u>hydrogen chloride (7647-01-0)</u> | | | | <u>0.74</u> |
| <u>hydrogen cyanide (74-90-8)</u> | | <u>5.9</u> | <u>1.16</u> | |
| <u>hydrogen fluoride (7664-39-3)</u> | | <u>1.3</u> | | <u>0.26</u> |
| <u>hydrogen sulfide (7783-06-4)</u> | | <u>5.1</u> | | |
| <u>maleic anhydride (108-31-6)</u> | | <u>0.5</u> | <u>0.11</u> | |
| <u>manganese and compounds</u> | | <u>1.3</u> | | |
| <u>manganese cyclopentadienyl tricarbonyl (12079-65-1)</u> | | <u>2.5 x 10⁻²</u> | | |
| <u>manganese tetroxide (1317-35-7)</u> | | <u>0.3</u> | | |
| <u>mercury, alkyl</u> | | <u>2.5 x 10⁻³</u> | | |
| <u>mercury, aryl and inorganic compounds</u> | | <u>2.5 x 10⁻²</u> | | |
| <u>mercury, vapor (7439-97-6)</u> | | <u>2.5 x 10⁻²</u> | | |
| <u>methyl chloroform (71-55-6)</u> | | <u>505.4</u> | | <u>257.98</u> |
| <u>methylene chloride (75-09-2)</u> | <u>2213.752</u> | | <u>1.79</u> | |
| <u>methyl ethyl ketone (78-93-3)</u> | | <u>155.8</u> | | <u>93.19</u> |
| <u>methyl isobutyl ketone (108-10-1)</u> | | <u>107.8</u> | | |
| <u>methyl mercaptan (74-93-1)</u> | | | <u>0.05</u> | |
| <u>nickel carbonyl (13463-39-3)</u> | | <u>2.5 x 10⁻²</u> | | |
| <u>nickel metal (7440-02-0)</u> | | <u>0.3</u> | | |
| <u>nickel, soluble compounds, as nickel</u> | | <u>2.5 x 10⁻²</u> | | |
| <u>nickel subsulfide (12035-72-2)</u> | <u>0.194</u> | | | |
| <u>nitric acid (7697-37-2)</u> | | | | <u>1.05</u> |
| <u>nitrobenzene (98-95-3)</u> | | <u>2.5</u> | <u>0.53</u> | |
| <u>n-nitrosodimethylamine (62-75-9)</u> | <u>4.612</u> | | | |
| <u>non-specific chromium (VI) compounds, as chromium (VI) equivalent</u> | <u>0.008</u> | | | |
| <u>pentachlorophenol (87-86-5)</u> | | <u>0.1</u> | <u>0.03</u> | |
| <u>perchloroethylene (127-18-4)</u> | <u>17525.534</u> | | | |
| <u>phenol (108-95-2)</u> | | | <u>1.00</u> | |
| <u>phosgene (75-44-5)</u> | | <u>0.1</u> | | |
| <u>phosphine (7803-51-2)</u> | | | | <u>0.14</u> |
| <u>polychlorinated biphenyls (1336-36- 3)</u> | <u>7.656</u> | | | |
| <u>soluble chromate compounds, as chromium (VI) equivalent</u> | | <u>2.6 x 10⁻²</u> | | |
| <u>styrene (100-42-5)</u> | | | <u>11.16</u> | |
| <u>sulfuric acid (7664-93-9)</u> | | <u>0.5</u> | <u>0.11</u> | |

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|--|--------------------------------|------------------------------|---------------|----------------|
| <u>tetrachlorodibenzo-p-dioxin (1746- 01-6)</u> | <u>2.767 x 10⁻⁴</u> | | | |
| <u>1,1,1,2-tetrachloro-2,2,-difluoroethane (76-11-9)</u> | | <u>2190.2</u> | | |
| <u>1,1,2,2-tetrachloro-1,2-difluoroethane (76-12-0)</u> | | <u>2190.2</u> | | |
| <u>1,1,2,2-tetrachloroethane (79-34-5)</u> | <u>581.110</u> | | | |
| <u>toluene (108-88-3)</u> | | | | <u>58.97</u> |
| <u>toluene diisocyanate,2,4-(584-84-9) and 2,6-(91-08-7) isomers</u> | | <u>8.4 x 10⁻³</u> | | |
| <u>trichloroethylene (79-01-6)</u> | <u>5442.140</u> | | | |
| <u>trichlorofluoromethane (75-69-4)</u> | | | <u>589.66</u> | |
| <u>1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)</u> | | | | <u>1000.32</u> |
| <u>vinyl chloride (75-01-4)</u> | <u>35.051</u> | | | |
| <u>vinylidene chloride (75-35-4)</u> | | <u>5.1</u> | | |
| <u>xylene (1330-20-7)</u> | | <u>113.7</u> | | <u>68.44</u> |

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2 ~~(b)~~(c) For the following pollutants, the highest emissions occurring for any 15-minute period shall be multiplied by
3 four and the product shall be compared to the value in Paragraph ~~(a)~~. (a) or (b) as applicable. These pollutants are:
4 (1) acetaldehyde (75-07-0);
5 (2) acetic acid (64-19-7);
6 (3) acrolein (107-02-8);
7 (4) ammonia (7664-41-7);
8 (5) bromine (7726-95-6);
9 (6) chlorine (7782-50-5);
10 (7) formaldehyde (50-00-0);
11 (8) hydrogen chloride (7647-01-0);
12 (9) hydrogen fluoride (7664-39-3); and
13 (10) nitric acid (7697-37-2).

14
15 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215-107; 143-215.108; 143B-282; ~~S.L. 1989, c. 168, s. 45;~~
16 Rule originally codified as part of 15A NCAC 02H .0610;
17 Eff. July 1, 1998;
18 Amended Eff. May 1, 2014; January 1, 2010; June 1, 2008; April 1, 2005; February 1, 2005;
19 April 1, 2001.