

## REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .1104

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

***NOTE WELL: This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.***

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*I am mindful that you used the Requests for Technical Changes that I issued in December for this Rule and that there is other language and adjustments to be made pending the outcome of the legislative review. Therefore, many of the formatting issues I am addressing here may be negated by additional formatting following legislative review.*

*On Page 2, I'd move the CAS number for hexachlorodibenzo-p-dioxin down to its own line.*

*Please adjust the spacing on Page 3 for "manganese cyclopentadienyl tricarbonyl," mercury, aryle and inorganic compounds" and "non-specific chromium..."*

*Also on Page 3, is the comma after "nickel" in "nickel, soluble compounds, as nickel" supposed to be there? I am not familiar with the terminology, but it looked odd to me, so I wanted to ask.*

*On Page 4, I'd bring the CAS number to its own line for "polychlorinated biphenyls" and "tetrachlorodibenzo-p-dioxin"*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

## RRC STAFF OPINION

PLEASE NOTE: THIS COMMUNICATION IS EITHER 1) ONLY THE RECOMMENDATION OF AN RRC STAFF ATTORNEY AS TO ACTION THAT THE ATTORNEY BELIEVES THE COMMISSION SHOULD TAKE ON THE CITED RULE AT ITS NEXT MEETING, OR 2) AN OPINION OF THAT ATTORNEY AS TO SOME MATTER CONCERNING THAT RULE. THE AGENCY AND MEMBERS OF THE PUBLIC ARE INVITED TO SUBMIT THEIR OWN COMMENTS AND RECOMMENDATIONS (ACCORDING TO RRC RULES) TO THE COMMISSION.

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .1104 and 02Q .0711

RECOMMENDED ACTION:

- X Approve and note staff's comment
- Object, based on:
- Lack of statutory authority
  - Unclear or ambiguous
  - Unnecessary
  - Failure to comply with the APA
  - Extend the period of review

COMMENT:

*The Environmental Management Commission amended these two Rules by changing, among other things, the acceptable level of asbestos in toxic air pollutants.*

*The Commission reviewed and approved changes to these two Rules in its December 2013 meeting. At the time, the change was to the acceptable levels of arsenic for toxic air pollutants. The approved Rules then received 10 letters of objection pursuant to G.S. 150B-21.3(b2), so the effective date of those changes is stayed pending legislative review in the coming session. (The approved versions of the Rules are attached, with the approved change to the arsenic level highlighted.)*

*Because the December 2013 versions of the approved Rules have a delayed effective date, the revised language is not in the Administrative Code and could not be used in drafting these amendments. Staff wanted to make you aware that you saw these Rules recently and, pending action by the legislature, there may be changes in these Rules to use the approved language relating to the arsenic levels. In addition, please note that the EMC used the technical corrections requests issued by staff in December to make some changes to this version of the Rules post-publication (such as striking the reference in the History Note to Session Law 1989, c. 168).*

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

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

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	2.1 x 10 <sup>-6</sup>			
asbestos (1332-21-4)	2.8 x 10 <sup>-11</sup> fibers/ml			
aziridine (151-56-4)		0.006		
benzene (71-43-2)	1.2 x 10 <sup>-4</sup>			
benzidine and salts (92-87-5)	1.5 x 10 <sup>-8</sup>			
benzo(a)pyrene (50-32-8)	3.3 x 10 <sup>-5</sup>			
benzyl chloride (100-44-7)			0.5	
beryllium (7440-41-7)	4.1 x 10 <sup>-6</sup>			
beryllium chloride (7787-47-5)	4.1 x 10 <sup>-6</sup>			
beryllium fluoride (7787-49-7)	4.1 x 10 <sup>-6</sup>			
beryllium nitrate (13597-99-4)	4.1 x 10 <sup>-6</sup>			
bioavailable chromate pigments, as chromium (VI) equivalent	8.3 x 10 <sup>-8</sup>			
bis-chloromethyl ether (542-88-1)	3.7 x 10 <sup>-7</sup>			
bromine (7726-95-6)				0.2
1,3-butadiene (106-99-0)	4.4 x 10 <sup>-4</sup>			
cadmium (7440-43-9)	5.5 x 10 <sup>-6</sup>			
cadmium acetate (543-90-8)	5.5 x 10 <sup>-6</sup>			
cadmium bromide (7789-42-6)	5.5 x 10 <sup>-6</sup>			
carbon disulfide (75-15-0)		0.186		
carbon tetrachloride (56-23-5)	6.7 x 10 <sup>-3</sup>			
chlorine (7782-50-5)		0.0375		0.9
chlorobenzene (108-90-7)		2.2		
chloroform (67-66-3)	4.3 x 10 <sup>-3</sup>			
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 x 10 <sup>-2</sup>			

Pollutant (CAS Number)	Annual (Carcinogens)	24-hour (Chronic Toxicants)	1-hour (Acute Systemic Toxicants)	1-hour (Acute Irritants)
ethyl acetate (141-78-6)			140	
ethylenediamine (107-15-3)		0.3	2.5	
ethylene dibromide (106-93-4)	$4.0 \times 10^{-4}$			
ethylene dichloride (107-06-2)	$3.8 \times 10^{-3}$			
ethylene glycol monoethyl ether (110-80-5)		0.12	1.9	
ethylene oxide (75-21-8)	$2.7 \times 10^{-5}$			
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 (57653-85-7)	$7.6 \times 10^{-8}$			
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)	$2.4 \times 10^{-2}$		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)	$2.1 \times 10^{-6}$			
nitric acid (7697-37-2)				1
nitrobenzene (98-95-3)		0.06	0.5	
n-nitrosodimethylamine (62-75-9)	$5.0 \times 10^{-5}$			
non-specific chromium (VI) compounds, as chromium (VI) equivalent	$8.3 \times 10^{-8}$			
pentachlorophenol (87-86-5)		0.003	0.025	
perchloroethylene (127-18-4)	$1.9 \times 10^{-1}$			
phenol (108-95-2)			0.95	
phosgene (75-44-5)		0.0025		

Pollutant (CAS Number)	Annual (Carcinogens)	24-hour (Chronic Toxicants)	1-hour (Acute Systemic Toxicants)	1-hour (Acute Irritants)
phosphine (7803-51-2)				0.13
polychlorinated biphenyls (1336-36-3)	$8.3 \times 10^{-5}$			
soluble chromate compounds, as chromium (VI) equivalent		$6.2 \times 10^{-4}$		
styrene (100-42-5)			10.6	
sulfuric acid (7664-93-9)		0.012	0.1	
tetrachlorodibenzo-p-dioxin (1746-01-6)	$3.0 \times 10^{-9}$			
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)	$6.3 \times 10^{-3}$			
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)	$5.9 \times 10^{-2}$			
trichlorofluoromethane (75-69-4)			560	
1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)				950
vinyl chloride (75-01-4)	$3.8 \times 10^{-4}$			
vinylidene chloride (75-35-4)		0.12		
xylene (1330-20-7)		2.7		65

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(3),(4),(5); 143B-282; Eff. May 1, 1990; Amended Eff. September 1, 1992; March 1, 1992; Temporary Amendment Eff. July 20, 1997; Amended Eff. March 1, 2010; June 1, 2008; April 1, 2005; April 1, 2001; July 1, 1998; Amended Eff. Pending Legislative Review.*

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

(a) A permit to emit toxic air pollutants is required for any facility whose actual (or permitted if higher) rate of emissions from all sources are greater than any one of the following toxic air pollutant permitting emissions rates:

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	0.053			
asbestos (1332-21-4)	1.9 X 10 <sup>-6</sup>			
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

(b) For the following pollutants, the highest emissions occurring for any 15-minute period shall be multiplied by four and the product shall be compared to the value in Paragraph (a). These pollutants are:

- (1) acetaldehyde (75-07-0);
- (2) acetic acid (64-19-7);
- (3) acrolein (107-02-8);
- (4) ammonia (7664-41-7);
- (5) bromine (7726-95-6);
- (6) chlorine (7782-50-5);
- (7) formaldehyde (50-00-0);
- (8) hydrogen chloride (7647-01-0);
- (9) hydrogen fluoride (7664-39-3); and
- (10) nitric acid (7697-37-2).

*History Note:* Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282;  
Rule originally codified as part of 15A NCAC 02H .0610;  
Eff. July 1, 1998;  
Amended Eff. January 1, 2010; June 1, 2008; April 1, 2005; February 1, 2005; April 1, 2001;  
Amended Eff. Pending Legislative Review.



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

2

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	$2.3 \times 10^{-7}$			
asbestos (1332-21-4)	<del><math>2.8 \times 10^{-11}</math></del> <u><math>2.8 \times</math></u> <u><math>10^{-6}</math></u> fibers/ml			
aziridine (151-56-4)		0.006		
benzene (71-43-2)	$1.2 \times 10^{-4}$			
benzidine and salts (92-87-5)	$1.5 \times 10^{-8}$			
benzo(a)pyrene (50-32-8)	$3.3 \times 10^{-5}$			
benzyl chloride (100-44-7)			0.5	
beryllium (7440-41-7)	$4.1 \times 10^{-6}$			
beryllium chloride (7787-47-5)	$4.1 \times 10^{-6}$			
beryllium fluoride (7787-49-7)	$4.1 \times 10^{-6}$			
beryllium nitrate (13597-99-4)	$4.1 \times 10^{-6}$			
bioavailable chromate pigments, as chromium (VI) equivalent	$8.3 \times 10^{-8}$			
bis-chloromethyl ether (542-88-1)	$3.7 \times 10^{-7}$			

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)	$4.4 \times 10^{-4}$			
cadmium (7440-43-9)	$5.5 \times 10^{-6}$			
cadmium acetate (543-90-8)	$5.5 \times 10^{-6}$			
cadmium bromide (7789-42-6)	$5.5 \times 10^{-6}$			
carbon disulfide (75-15-0)		0.186		
carbon tetrachloride (56-23-5)	$6.7 \times 10^{-3}$			
chlorine (7782-50-5)		0.0375		0.9
chlorobenzene (108-90-7)		2.2		
chloroform (67-66-3)	$4.3 \times 10^{-3}$			
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)	$8.3 \times 10^{-2}$			
ethyl acetate (141-78-6)			140	
ethylenediamine (107-15-3)		0.3	2.5	
ethylene dibromide (106-93-4)	$4.0 \times 10^{-4}$			
ethylene dichloride (107-06-2)	$3.8 \times 10^{-3}$			
ethylene glycol monoethyl ether (110-80-5)		0.12	1.9	
ethylene oxide (75-21-8)	$2.7 \times 10^{-5}$			
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 (57653-)	$7.6 \times 10^{-8}$			

Pollutant (CAS Number)	Annual (Carcinogens)	24-hour (Chronic Toxicants)	1-hour (Acute Systemic Toxicants)	1-hour (Acute Irritants)
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)	$2.4 \times 10^{-2}$		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)	$2.1 \times 10^{-6}$			
nitric acid (7697-37-2)				1
nitrobenzene (98-95-3)		0.06	0.5	
n-nitrosodimethylamine (62-75-9)	$5.0 \times 10^{-5}$			
non-specific chromium (VI) compounds, as chromium (VI)	$8.3 \times 10^{-8}$			

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)	$1.9 \times 10^{-1}$			
phenol (108-95-2)			0.95	
phosgene (75-44-5)		0.0025		
phosphine (7803-51-2)				0.13
polychlorinated biphenyls (1336-36-3)	$8.3 \times 10^{-5}$			
soluble chromate compounds, as chromium (VI) equivalent		$6.2 \times 10^{-4}$		
styrene (100-42-5)			10.6	
sulfuric acid (7664-93-9)		0.012	0.1	
tetrachlorodibenzo-p-dioxin (1746-01-6)	$3.0 \times 10^{-9}$			
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)	$6.3 \times 10^{-3}$			
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)	$5.9 \times 10^{-2}$			
trichlorofluoromethane (75-69-4)			560	
1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)				950
vinyl chloride (75-01-4)	$3.8 \times 10^{-4}$			
vinylidene chloride (75-35-4)		0.12		
xylene (1330-20-7)		2.7		65

1

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.*

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0701

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*On line 4, please strike (a), as you don't need an (a) without a (b).*

*I believe there should be an "or" at the end of line 7.*

*In the History Note, I don't think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

*In the History Note, I think you should add 143B-215.107.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: March 27, 2014

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

2  
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;  
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.~~

24  
25 *History Note: Authority G.S. 143-215.3(a)(1); 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.*

29

## REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0702

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*In Subparagraph (a)(3), line 7, what "process" are you referring to? Are you referring to the processes in (a)(22)?*

*In Subparagraph (a)(10), line 26, who adopts these Rules? And here, you don't give a specific cite to the CFR for the Clean Air Act, but you do in other places (for example, Subparagraph (a)(16)). Should there be a more specific citation here?*

*In Subparagraph (a)(13), line 33, how do people know what is acceptable to the NC Department of Agriculture? Note the same question for (a)(14). I realize these are outside of the agency's rulemaking authority, but are you looking at specific rules or laws for these references?*

*On Page 2, Subparagraph (a)(18), please change the reference on line 19 to "Rule .0703 of this Section"*

*Also in (a)(18), please replace the period with a semicolon on line 20.*

*In Subparagraph (a)(21), please change the citation on line 29 and replace the period with a semicolon to read "Rule .0102(c)(1)(1) of this Subchapter;"*

*On Page 3, (a)(22)(F), line 1, please insert a comma after "year"*

*In (a)(23), line 12, please change the citation to "Rule .0712 of this Section;"*

*In (a)(26), I am simply curious – why is 4843 horsepower the threshold? What is the significance of that?*

*Throughout this Rule when you refer to CFRs, I take you are relying upon Rule 15A NCAC 02Q .0106, which states:*

### **15A NCAC 02Q .0106 INCORPORATION BY REFERENCE**

**(a) Referenced CFR contained in this Subchapter are incorporated by reference.**

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014



(b) The CFR incorporated by reference in this Subchapter shall automatically include any later amendments thereto unless a specific rule specifies otherwise.

(c) The CFR may be purchased from the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250. The cost of the 40 CFR Parts 61 to 80 is fourteen dollars (\$14.00).

*If that is correct, do you need "as amended" in Item 27, lines 20, 21 and 23? I know that this is language from the law, but it seems repetitive in this Rule.*

*In (a)(29), the use of "at least" on line 30 is something that isn't usually used in rule. Do you have a compelling reason to retain this language?*

*In (a)(30), why did you strike "or" on line 37? I think you need it.*

*On Page 4, (a)(31), line 4, replace the semicolon with a comma after "1992"*

*In (a)(31)(A), replace the comma after "terminal" with a semicolon.*

*The first sentence in Paragraph (d) is awkward. I suggest "An activity that is exempt from being permitted under this Section is not exempt from any applicable requirement..."*

*In the History Note, I don't think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

*In the History Note, I think you should add 143B-215.107(a)(5), especially as you are using it for the new Item 27.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

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

2  
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 under Title II  
27 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 .0703 except new or modified combustion  
20 sources permitted on or after July 10, 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).
- 30 (22) processes:
- 31 (A) electric motor burn-out ovens with secondary combustion chambers or afterburners;
- 32 (B) electric motor bake-on ovens;
- 33 (C) burn-off ovens for paint-line hangers with afterburners;
- 34 (D) hosiery knitting machines and associated lint screens, hosiery dryers and associated lint  
35 screens, and hosiery dyeing processes where bleach or solvent dyes are not used;
- 36 (E) blade wood planers planing only green wood;

- 1 (F) saw mills that saw no more than 2,000,000 board feet per year provided only green wood  
2 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;
- 13 (24) wastewater treatment systems at pulp and paper mills for hydrogen sulfide and methyl mercaptan  
14 only;
- 15 ~~(25)~~ natural gas and propane fired combustion sources with an aggregate allowable heat input value  
16 less than 450 million Btu per hour that are the only source of benzene at the facility;
- 17 ~~(26)~~ emergency engines with an aggregate total horsepower less than 4843 horsepower that are the only  
18 source of formaldehyde at the facility;
- 19 ~~(27)~~ an air emission source that is any of the following:  
20 (A) subject to an applicable requirement under 40 CFR Part 61, as amended;  
21 (B) an affected source under 40 CFR Part 63, as amended; or  
22 (C) subject to a case-by-case MACT permit requirement issued by the Division pursuant to  
23 Paragraph (j) of 42 U.S.C. Section 7412, as amended;
- 24 ~~(25)(28)~~ gasoline dispensing facilities or gasoline service station operations that comply with 15A NCAC  
25 02D .0928 and .0932 and that receive gasoline from bulk gasoline plants or bulk gasoline  
26 terminals that comply with 15A NCAC 02D .0524, .0925, .0926, .0927, .0932, and .0933 via tank  
27 trucks that comply with 15A NCAC 02D .0932;
- 28 ~~(26)(29)~~ the use of ethylene oxide as a sterilant in the production and subsequent storage of medical devices  
29 or the packaging and subsequent storage of medical devices for sale if the emissions from all new  
30 and existing sources at the facility described in 15A NCAC 02D .0538(d) are controlled at least to  
31 the degree described in 15A NCAC 02D .0538(d) and the facility complies with 15A NCAC 02D  
32 .0538(e) and (f);
- 33 ~~(27)(30)~~ bulk gasoline plants, including the storage and handling of fuel oils, kerosenes, and jet fuels but  
34 excluding the storage and handling of other organic liquids, that comply with 15A NCAC 02D  
35 .0524, .0925, .0926, .0932, and .0933; unless the Director finds that a permit to emit toxic air  
36 pollutants is required under Paragraph (b) of this Rule or Rule .0712 of this Section for a particular  
37 bulk gasoline plant; ~~or~~

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

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

7 (B) the owner or operator of the bulk gasoline terminal meets the requirements of 15A NCAC  
8 02D .0927(i).

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

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

17 (d) Because an activity is exempted from being required to have a permit does not mean that the activity is  
18 exempted from any applicable requirement or that the owner or operator of the source is exempted from  
19 demonstrating compliance with any applicable requirement.

20  
21 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;*  
22 *Rule originally codified as part of 15A NCAC 02H .0610;*  
23 *Eff. July 1, 1998;*  
24 *Amended Eff. May 1, 2014; July 10, 2010; April 1, 2005; July 1, 2002; July 1, 2000.*

## REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0703

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*So that I understand – the changes to Rule .0701, specifically the deletion of (a)(2), do not impact Sub-Item (1)(a)?*

*In Sub-Item (1)(a)(i), line 11, who will determine what the more representative period is?*

*In Item 2, line 22, I would replace “and is listed in” and state “established by the Commission in 15A NCAC 02D .1104.”*

*In Item (3), there appears an errant underline after “dichromate” on line 25.*

*In Item (6), does your regulated public know what “unadulterated fossil fuel” is?*

*On Page 2, line 7, delete the extra space between “.0702” and “(a)” in Sub-Item (9)(a).*

*In Sub-Item (9)(b), you need to reference “Rule .0702(a)”*

*Throughout this Rule and other Rules, I see a reference to the Clean Air Act without a specific citation, such as Item (10). I don't see a general citation in the other rules in this Subchapter, or is this 40 CFR Part 82? Does your regulated public know this?*

*In Item (16), I take it the comma after “Nickel” on line 32 is correct for the terminology? And what is the reason for listing the chemical formulas for these compounds but not the other compounds in the Rule?*

*On Page 3, Item (20), to whom is the classification code standard? Or is that a term of art? And do you still need this definition? It appears that the only place it was used in the Section is in Rule .0705, which is now being proposed for repeal.*

*In the History Note, I don't think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel  
Date submitted to agency: March 27, 2014

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

2  
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 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)(28)~~ through ~~(27)(31)~~ of this Section, are less than the  
8 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)(28)~~ through ~~(27)(31)~~ of  
11 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 ( $\text{NiCl}_2$ , CAS No. 7718-54-  
33 9), sulfate ( $\text{NiSO}_4$ , CAS No. 7786-81-4), and nitrate ( $\text{Ni}(\text{NO}_3)_2$ , 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); 143-215.108; 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.*  
23  
24

## REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0704

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*In (a), I take it a "new" facility is one that is permitted after the effective amended date?*

*As I read it, I think you intend Paragraph (b) to now be one sentence. If so, then you need to delete the colon after "that" on line 5. In addition, this is one very long sentence. What about:*

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

*In Paragraph (d), I note G.S. 143-215.107(a)(5), which states the Commission has the authority to:*

(5) To develop and adopt emission control standards as in the judgment of the Commission may be necessary to prohibit, abate, or control air pollution commensurate with established air quality standards. The Department shall implement rules adopted pursuant to this subsection as follows:

a. Except as provided in sub-subdivision b. of this subdivision, rules adopted pursuant to this subdivision that control emissions of toxic air pollutants shall not apply to an air emission source that is any of the following:

1. Subject to an applicable requirement under 40 C.F.R. Part 61, as amended.
2. An affected source under 40 C.F.R. Part 63, as amended.
3. Subject to a case-by-case maximum achievable control technology (MACT) permit requirement issued by the Department pursuant to 42 U.S.C. § 7412(j), as amended.

b. **Upon receipt of a permit application for a new source or facility, or for the modification of an existing source or facility, that would result in an increase in the emission of toxic air pollutants, the Department shall review the application to determine if the emission of toxic air pollutants from the source or facility would present an unacceptable risk to human health.** Upon making a written finding that a source or facility presents or would present

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

an unacceptable risk to human health, the Department shall require the owner or operator of the source or facility to submit a permit application for any or all emissions of toxic air pollutants from the facility that eliminates the unacceptable risk to human health. The written finding may be based on modeling, epidemiological studies, actual monitoring data, or other information that indicates an unacceptable health risk. When the Department requires the owner or operator of a source or facility to submit a permit application pursuant to this sub-subdivision, the Department shall report to the Chairs of the Environmental Review Commission on the circumstances surrounding the permit requirement, including a copy of the written finding.

*I assume that is the purpose of having the applicant include the evaluation of the pollutants in Rule 15A NCAC 02D .1104?*

*In Paragraph (d), line 22-23, I'd state "pollutants set forth in" or "pollutants listed in" rather than "covered under."*

*In the History Note, I don't think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

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  
9 this ~~Subchapter;~~ Subchapter.

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

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

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

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

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

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

25  
26 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;*

27 *Rule originally codified as part of 15A NCAC 2H .0610;*

28 *Eff. July 1, 1998, 1998;*

29 *Amended Eff. May 1, 2014.*

30

1 15A NCAC 02Q .0705 is repealed as published in 28:04 NCR 339-340 as follows:

2

3 **15A NCAC 02Q .0705 EXISTING FACILITIES AND SIC CALLS**

4

5 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;*

6 *Rule originally codified as part of 15A NCAC 2H .0610;*

7 *Eff. July 1, ~~1998~~, 1998;*

8 *Repealed Eff. May 1, 2014.*

9

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0706

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*In (a), I take it the modifications addressed in this Rule are those permitted after the effective amended date?*

*As I read it, I think you intend Paragraph (a) to now be one sentence. If so, then you need to delete the colon after "that" on line 4. In addition, this is one long sentence. What about:*

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

*If that will not work, make sure you use consistent citations to Rules in Subchapter 02Q in the same sentence.*

*I am a bit confused here – (a) applies if Section .1100 doesn't require the permit, but the owner or operator must follow Paragraph (b), which does apply for Section .1100? If that's correct, why are you drawing the distinction in (a)? Is it to direct the regulated public?*

*In the History Note, I don't think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

1 15A NCAC 02Q .0706 is amended 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;~~ 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 (b) The owner or operator of the facility shall submit a permit application to comply with 15A NCAC 02D .1100 if  
16 the modification results in:

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

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

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

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

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

27 All sources at the facility, excluding sources exempt from evaluation in Rule .0702 of this Section, emitting these  
28 toxic air pollutants shall be included in the evaluation. ~~Notwithstanding 02Q .0702(a)(18), on and after July 10,~~  
29 ~~2010, an evaluation of a modification to a combustion source shall also include emissions from all permitted~~  
30 ~~combustion sources as defined in 02Q .0703. A permit application filed pursuant to Subparagraph (b)(2) of this~~  
31 ~~Rule shall include an evaluation for all toxic air pollutants identified by the Director as causing an acceptable~~  
32 ~~ambient level in 15A NCAC 02D .1104 to be exceeded.~~

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



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

REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0709

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*Throughout this Rule, you refer to demonstrating “to the satisfaction of” some body. In most places, you appear to then state what it is that the body is looking for. I am not sure you have that in (a)(1), but since I am not familiar at all with the terminology, so does that give clear guidance to your regulated public of what the standard will be for the Director?*

*In addition, where you speak to the “Commission or it’s delegate” in the Rule, is there any guidance for who the delegate is? Is that in law or statute somewhere? I note Rule 15A NCAC 02Q .0108 governs delegation by the Director. Is there something similar for the Commission elsewhere?*

*In (a)(2), line 11, “e.g.” should be italicized.*

*In (a)(2)(A), line 16, replace the comma after “concern” with a semicolon.*

*In both (b)(1), lines 26 and 28, and (b)(2), lines 30 and 33, I’d remove the parenthesis. In (b)(1), I’d state something like “infeasible, as the technology...” And in (b)(2), I’d just keep the sentences.*

*On Page 2, in Paragraph (c), line 3, generally the term “minimum” is not used in rules. Do you have a compelling reason for keeping it?*

*In Paragraph (c), line 10, I think the Rule would read better if the sentence read “The facility shall submit the pollution plan along with the permit application.”*

*In (e)(1), lines 23 and 27, don’t use the parenthesis. End the sentence “level; or” (replacing the comma on line 27).*

*In the History Note, I don’t think you need to retain the reference to SL 1989-168, which told the EMC to develop the ambient air standards for toxic pollutants. I believe the existing citations address this.*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

1 15A NCAC 02Q .0709 is amended 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., 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, 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 technology necessary to reduce  
27 emissions to a level to prevent the acceptable ambient levels in 15A NCAC 02D .1104 from being  
28 exceeded does not 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. (In deciding if a  
31 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.)

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 following  
3 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;
- 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 pollution prevention  
11 plan shall be maintained on site. A progress report on implementation of the plan shall be prepared by the facility  
12 annually and be made available to Division personnel for review upon request.

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

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

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

31  
32 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.108; 143B-282; S.L. 1989, c. 168, s. 45;  
33 Rule originally codified as part of 15A NCAC 2H .0610;  
34 Eff. July 1, 1998;  
35 Amended Eff. May 1, 2014; July 10, 2010; February 1, 2005.  
36  
37

## REQUEST FOR TECHNICAL CHANGE

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0711

**DEADLINE FOR RECEIPT: Friday, April 11, 2014**

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

*Again, I am mindful that you used the Requests for Technical Changes that I issued in December for this Rule and that there is other language and adjustments to be made pending the outcome of the legislative review. Therefore, many of the formatting issues I am addressing here may be negated by additional formatting following legislative review.*

*On Page 1, in (a), line 5, you are referring to release points that are “obstructed or non-vertically oriented.” On Page 4, in (b), line 3, you state “unobstructed and vertically oriented.” In (a), are you saying or in the sense “obstructed or non-vertically oriented or both” so that if the facility is not obstructed but non-vertically oriented, then Paragraph (a) applies? And (b) only applies if it is both unobstructed and vertically oriented?*

*On Pages 3 and 6, again I am just checking – it should read “Nickel<sup>2+</sup> soluble solutions, as nickel”?*

*On Pages 3 and 7 is there an extra space in the names “1,1,1,2-tetrachloro-2,2-difluoroethane” and “1,1,2,2-tetrachloro-1,2-difluoroethane”? If so, should that be there?*

*In Paragraph (b), the top row of the new table, there appear to be errant underlines under “Carcinogens,” “Chronic Toxicants,” and “Acute Irritants.”*

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder  
Commission Counsel

Date submitted to agency: March 27, 2014

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)	<del>1.9 X 10<sup>-6</sup>-5.7</del> <u>X 10<sup>-3</sup></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<sup>-3</sup></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<sup>-3</sup></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<sup>-2</sup></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<sup>-2</sup></u>		

<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<sup>-2</sup></u>		
<u>manganese tetroxide (1317-35-7)</u>		<u>0.3</u>		
<u>mercury, alkyl</u>		<u>2.5 x 10<sup>-3</sup></u>		
<u>mercury, aryl and inorganic compounds</u>		<u>2.5 x 10<sup>-2</sup></u>		
<u>mercury, vapor (7439-97-6)</u>		<u>2.5 x 10<sup>-2</sup></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<sup>-2</sup></u>		
<u>nickel metal (7440-02-0)</u>		<u>0.3</u>		
<u>nickel, soluble compounds, as nickel</u>		<u>2.5 x 10<sup>-2</sup></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<sup>-2</sup></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>	

<u>tetrachlorodibenzo-p-dioxin (1746- 01-6)</u>	<u>2.767 x 10<sup>-4</sup></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<sup>-3</sup></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>

- 1  
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); 143-215.108; 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.

1 15A NCAC 02Q .0714 is repealed as published in 28:04 NCR 347 as follows:

2

3 **15A NCAC 02Q .0714 WASTEWATER TREATMENT SYSTEMS AT PULP AND PAPER MILLS**

4

5 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143B-282;*

6 *Eff. April 1, ~~2005~~2005;*

7 *Repealed Eff. May 1, 2014.*

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