Burgos, Alexander N

Subject: FW: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes
Attachments: Follow up Comments 10132023_Responses.docx; 15A NCAC 02D .0614.docx; 15A NCAC 02D .0918.docx; 15A NCAC 02D .0926.docx; 15A NCAC 02D .0927.docx; 15A NCAC 02D .0928.docx; 15A NCAC 02D .0932.docx; 15A NCAC 02D .0961.docx; 15A NCAC 02D .0964.docx; 15A NCAC 02D .1403.docx; 15A NCAC 02D .1708.docx; 15A NCAC 02Q .0102.docx

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From: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>
Sent: Tuesday, October 17, 2023 12:10 PM
To: Liebman, Brian R <brian.liebman@oah.nc.gov>; Everett, Jennifer <jennifer.everett@deq.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Brian,

Attached are responses to your follow-up comments and the revised rules.

Please let us know if there are any questions.

Thank you,

Katie

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Black italic text = original RRC comment
Blue text = agency response
Red text = RRC follow-up comment/question.
Green text = agency response to follow-up comment/question.

.0532
In (e)(3)(B)(i), line 20, what is a "sufficient" air quality offset?
Sufficient means that there is an improvement in the locality where the national ambient air quality standard is not met, as stated in the first sentence of Part (e)(3)(B).
My question is whether *any* improvement is "sufficient" or if there's a certain threshold that must be met to be considered "sufficient".
Any improvement is sufficient and there is not a certain threshold that must be met. Subpart (e)(3)(B)(i) defines "sufficient" as "to comply with this Part," which refers to Part (3)(3)(B). The improvement is defined in (e)(3)(B) which states "The source will have an air quality offset, i.e., the applicant will have caused an air quality improvement in the locality where the national ambient air quality standard is not met by causing reductions in impacts of other sources greater than any additional impact caused by the source for which the application is being made." Different from "emissions," "impacts" are determined through air dispersion modeling, which takes into account site-specific characteristics, such as meteorology, terrain, and stack parameters, all of which affect the dispersion of air pollutants from a stack or emissions source. This is why an emissions value/threshold is not specified in this paragraph. Rather, the "impact" level required is defined with the aforementioned language appearing in the first sentence of (e)(3)(B).

.0614
In (a), line 5, is "emissions unit" defined anywhere?
This industry term is well known among stakeholders and engineering professionals within the field of air quality. The EPA defines "emissions unit" as any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Subsection 112(b) of the Clean Air Act.

This can be found under the Vocabulary Catalog found here:
https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Air%20Permitting%20Terms
If the term is defined by the EPA, why not incorporate the definition by reference here?
A reference to 40 CFR 64.1, which contains the definitions for Compliance Assurance Monitoring (CAM) was added to paragraph (a).

.0918
In (c)(3), lines 31-32, "three piece applicator" is not defined in (a). Is there a reason for the omission?

This refers to an applicator with three pieces, which is often used in three-piece side seam coating operations. This rule is based off EPA's Control Technique Guidelines (CTG) for implementing reasonably available control technology (RACT) from this source category:
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000UNN9.txt

Below is an industry example which can include all types of cans like paint cans, vegetable cans, and soda cans.

https://www.nordson.com/en/divisions/industrial-coating-systems/application-solutions/container-coating
Unfortunately, this doesn't answer my question. Why are other kinds of applicators defined in (a), and this one is not?
The term "three piece applicator" was removed from the text in Subparagraph (c)(3) and (d)(3). These Subparagraphs now include only the term "three-piece can side stream spray" which is defined in Subparagraph (a)(6).

.0926
In (c), p.2, lines 3-4 is it accurate to say that the receiving stationary storage tank should be equipped for "bottom filling" as the term is used in (a)?
Yes, this is accurate. The language of (c), p.2, lines 3-4 aligns with that in the definition of "bottom filling" in Paragraph (a).

Additionally, line 1 has been revised to read with better clarity and to indicate a singular storage tank.
Thanks for the changes. However, why not just use the term "bottom filling" that you took the care to define in (a)? I think it's potentially confusing to define the term, but then not use it here.
"Bottom filling" as defined in paragraph (a) is used as a verb, while the description in paragraph (c) is describing the properties of the tank, rather than the activity of filling the tank. Clarifying language has been added to (c).

In (h)(1), line 31, please define "good working order"?
This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of bulk gasoline plant, including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs for the control of VOC emissions, with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term of art among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule:
https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF

Similarly for Tennessee (page 46-9):
https://www.epa.gov/system/files/documents/2022-09/Knox%20Section%2046.pdf
I understand that the term is common, but a term of art, by its definition, has a known and articulable meaning. I believe I've seen a definition in other areas of the NCAC, so it shouldn't be difficult to reproduce here.
Clarifying language has been added to the rule.

In (h)(3), line 34, is there a definition for "vapor tight"? I've seen this phrase across the Section .0900 rules submitted for review, and I think it's obvious what it means, but given the technical nature of these rules, I wondered if there was an explicit definition.

Broadly, "vapor tight" means the unit and its fittings are not measurably releasing vapor to the atmosphere. The EPA defines "vapor tight" for a cargo tank in 40 CFR 63.421 as "*a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.425(e), and which is subject at all times to the test requirements in §63.425(f), (g), and (h).*" The annual certification test in §63.425(e) requires a leak detection test using EPA Test Method 21 and a pressure test of the cargo tank's internal vapor valve. The leak detection test requires that "*a vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.*" The test requirements in §63.425(f), (g), and (h) are a leak detection test using EPA Test Method 21, a nitrogen pressure decay field test, and a continuous performance pressure decay test.

If the term is defined in the CFR, perhaps a cross-reference here would be useful.

Added the following CFR references for the cargo tank (gasoline tank truck) and the peripheral equipment specified in Paragraph (h)(3).

40 CFR 60.501 "Vapor-tight gasoline tank truck" means a gasoline tank truck which has demonstrated within the 12 preceding months that its product delivery tank will sustain a pressure change of not more than 750 pascals (75 mm of water) within 5 minutes after it is pressurized to 4,500 pascals (450 mm of water). This capability is to be demonstrated using the pressure test procedure specified in Method 27.

40 CFR 63.11132 "Vapor-tight" means equipment that allows no loss of vapors. Compliance with vapor-tight requirements can be determined by checking to ensure that the concentration at a potential leak source is not equal to or greater than 100 percent of the Lower Explosive Limit when measured with a combustible gas detector, calibrated with propane, at a distance of 1 inch from the source.

.0927

In (a)(9)(A) and (B), lines 35 and 36, is there a definition for "hazardous liquid"?

This definition of pipeline breakout station reflects that for "breakout tank" in 49 CFR 195.2, which also defines "hazardous liquid" as "petroleum, petroleum products, anhydrous ammonia, and ethanol or other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities." The scope of hazardous liquid to which this rule applies is narrowed by the incorporation of pipeline breakout station into the definition of "bulk gasoline terminal" in (a)(1)(A) as specific to "an interstate oil pipeline facility."

So, if the term "hazardous liquid" means something less than the definition in the CFR, I think it definitely needs to be defined here. Please include language here stating what a "hazardous liquid" is in this context.

A cross reference to the CFR definition was added. The term "hazardous liquid" in 02D .0927(a)(9) does not mean something less than the CFR since the usage of this term is just to give a general definition of a pipeline breakout station. The term "pipeline breakout station" is then used in the definition of "bulk gasoline terminal", which is used throughout the rule, including the applicability criteria of Paragraph (b).

In (i)(2), line 32, what is a "cluster"?

In this context, the cluster includes the sources of benzene emissions (including the pipeline and marketing terminals served by the pipeline) around the terminal (that existed before December 1, 1992 and is increasing benzene emissions).
How is the regulated public to know this? Please include a definition of "cluster" here.
The language has been revised for clarity to specify that it includes the terminal, pipeline, and marketing terminals served by the pipeline.

In (n), line 17, does 02D .0903 actually require visual inspection? That rule says only that the owner or operator shall install, operate, and maintain monitoring instruments "or procedures as necessary to comply with the requirements of this Section". Even if a visual inspection requirement is somewhere else in Section .0900, it surely is not in Rule .0903. Please revise.
The requirement for visual inspections is in 02D .0927(n). The reference to 02D .1903 is intended to encompass the general recordkeeping, reporting, and monitoring requirements that apply to any volatile organic compound (VOC) emission source, such as maintaining "written data and reports relating to…procedures that document the compliance status of the volatile organic compound emission source." The language of 02D .0927(n) has been revised for clarity.
Thank you for making changes, but unfortunately, I don't think the revision here makes a substantive difference. The way this language reads, it seems like .0903 requires the visual inspection. From your response, it sounds like you're saying that you want documentation of the visual inspection, which is fine, but I don't get that from this language. Please revise for clarity.
The language has been revised for clarity.

In (p)(5), line 4, "compliance" with what? Paragraph (p)? If so, what other information must be included in the report, other than what you have required here?
Compliance with this Rule. This is a specification for a facility to provide other means such as a third-party test report of the equipment being leak-tight.
Please say this in the Rule then.
The rule has been revised for clarity.

<u>.0928</u>
In (a)(10), line 25 and in (a)(14), p.2, line 1, what "facility" are you referring to? A gasoline dispensing facility? Or something else?
The regulated community understands this general term refers to any facility that is subject to this Rule 02D .0928 pursuant to Paragraph (b). This includes gasoline dispensing facilities and gasoline service stations.
If "facility" means "gasoline dispensing facility" then please just use the defined term here and anywhere else in the Rule that would be appropriate.
The term "facility" is defined in 15A NCAC 02D .0101(16), which applies to all of the Rules in Subchapter 02D.

In (c)(1), line 7, what is the equivalent to a floating roof?
This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities. The technology for gasoline storage is ever advancing and this phrasing allows for flexibility for a floating roof equivalent in prevent emissions. For example, the difference between internal and external floating roof technology. Below are some resources to help visualize why this language is helpful to stakeholders in application of the rule. When viewing tanks at a service station from the

outside, the tank may appear to have a fixed roof, but an internal floating roof may rest on the liquid inside the tank, providing the same (or better) control of gasoline vapors as an external floating roof.
http://www.largestoragetank.com/news/comparisons-between-internal-floating-roof-storage-tank-and-external-floating-storage-tank.html
https://www.youtube.com/watch?v=DNRpLiXecC4
This is an interesting explanation, but it doesn't help your regulated public understand what would and would not be considered "equivalent" to a floating roof. With respect to the examples you've provided, wouldn't both an internal and external floating roof structure be considered a "floating roof"?
This language is to allow for a new technology that achieves the same or greater emission reductions as a floating roof would on that same tank. The level of emission reductions achieved by a floating roof are variable and dependent on many factors, such as the other components of the tank, the material(s) stored in the tank, and others. The facility would need to make the demonstration that the technology achieves the same emission reductions as would be achieved if their tank had a floating roof. Additional language was added to the rule to clarify the meaning and determination of "equivalent".

In (d)(2), line 24, define "good working order".
This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of gasoline storage including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs the control of VOC emissions with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule:
https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF
The language has been revised for clarity.

In (d)(3), line 26, please define or delete "properly".
Please refer to the response above for "good working order" it is the same situation with language used across many states. It is not enough for a device to simply be working, which could mean that it is simply operating (but possibly not well). The unit needs to be well-maintained in accordance with the manufacturer's recommendations and specifications and good engineering practices.
"Properly" was deleted and clarifying language has been added.

In (d)(4), line 28, define "proper working order". Consider deleting "proper".
Please refer to the response above for "good working order" and "properly". It is the same situation with language used across many states.
For all three of these, please see my reply on "good working order" from Rule .0926. Also, it occurs to me that "good working order" and "proper working order" are separate terms and would likely have separate meanings. What is the difference between them?

"Proper" has been deleted and clarifying language has been added.

In (e)(2), p.3, line 2, what is an "equivalent" to a refrigeration-condensation system?
This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities and would be a system that provides for the same or better control as that specified for refrigeration-condensation systems (90% by weight recovery of VOCs in the displaced vapor).
Why not define "equivalent" in the Rule as you have here? With the parenthetical included in the body of the text, of course. ☺
The rule specifies what an acceptable "equivalent" is, in that it is either "a refrigeration-condensation system or an equivalent (system) designed to recover at least 90 percent by weight of the volatile organic compounds in the displaced vapor." In other words, whatever system is used, it must be designed to recover the specified amount of VOCs. For clarification, the term "system" has been added after "equivalent".

.0932
In (a)(8), line 27, the term "motor vehicle" is used without definition. I see you added that definition in Rule .0927, but it is limited in application to that Rule and doesn't apply here.
The definition in .0927 was requested by external stakeholders as it was a common and repeated question received each inspection cycle. The definition was added to .0927 to provide consistency and clarity for the regulated community. For the cargo tank owners and operators, there was not the same question or confusion.
I understand, but as "motor vehicle" has a statutory definition, which you've changed in .0927, you're now creating a situation where the term has different meanings in different contexts, i.e. ambiguity. If you're applying the definition in .0927 here, then say so. If it's the statutory definition, then say so. But leaving it undefined here is ambiguous.
A cross reference to the definition of "motor vehicle" in 02D .0928 has been added to 02D .0932(a)(8) for clarity.

In (d)(2)(A), p.3, line 7, what is a "potential leak source"?
A leak source for a storage tank of any kind includes the designed openings of the container, but may also include valves, connectors, pumps, pressure relief devices, open-ended lines, and past repairs which are weak points of the container. These are easily identifiable and known among the users of vapor collection systems as it is required as part of their training to receive certification to handle hazardous materials (gasoline) as part of their training. Collecting the vapors from gasoline not only protects ambient air quality, but also prevents explosions so there are overlapping interests in limiting gasoline emissions.
I understand this could be difficult to define, but you're asking your regulated public to identify and take readings from these areas. Thus, I think you need to say what they are. A general definition and a list of examples, as you've given here, would go a long way towards addressing this.
Including an inclusive list of potential sources or locations of leakage will likely lead to confusion among the regulated community because it indicates that checking the identified potential sources is sufficient, while the rule is intended to require the checking of the entire system for leakage that could be coming from one or more sources, irrespective of whether an individual component is listed in the rule. The acceptable leak detection procedures are identified in 2D .2615, which provides sufficient direction and guidance as to the manner in which the leak detection should conducted. The regulated community in this instance are trained professionals who must be certified to handle hazardous materials and leak detection, as opposed to the general public at-large, meaning that an inclusive list of potential sources of

leakage is not necessary for clarification and understanding of the application of the rule, especially in light of the established and codified Leak Detection Procedures identified in Rule 2D .2615.

In (d)(4), lines 20-22, where is the Director's authority to relax the monitoring requirements for some plants/terminals, and to increase the frequency of monitoring for others? The two statutes in your History Note explicitly give the "Commission" or the "Department" the authority to develop and implement rules.
The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. N.C.G.S. § 143-215.107 gives the Commission authority to "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" and gives the Department authority to implement those standards. N.C.G.S. § 143-215.66 further authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources. Here those requirements authorize sources to implement alternative testing procedures if approved by the Director under circumstances described in the rule.

This rule is an approved variation of monitoring requirements incorporated into the North Carolina SIP. This language provides for a custom approach to focusing staff resources where it is most beneficial for protecting air quality. In practice, this rule rewards facilities upkeeping their facility and preventing emissions. In the EPA's Leak Detection and Repair Best Practices Guide, they state: Many regulations allow for less frequent monitoring (i.e. skip periods) when good performance (as defined in the applicable regulation) is demonstrated. Skip period is an alternative work practice found in some equipment leak regulations and usually applies only to valves and connectors. After a specified number of leak detection periods (e.g., monthly) during which the percentage of leaking components is below a certain value (e.g., 2% for NSPS facilities), a facility can monitor less frequently (e.g., quarterly) as long as the percentage of leaking components remains low. The facility must keep a record of the percentage of the component type found leaking during each leak detection period.
Please add any statutes that give the Director this authority to the History Note.
Added 143-215.3(a)(4), 143-215.107 and 143-215.66.

<u>.0961</u>
In (c), p.2, line 13 and in (d), line 21, what is an "equivalent level of control"?
An "equivalent level of control" means a control strategy that achieves the same emission reductions as the requirements, determined on a case-by-case basis. The facility may provide another approach that achieves comparable emission reductions, and conditions for that approach are added to the facility's permit, as referenced in the rule language of (c) and (d).
Why not say this in the Rule then?
The language has been revised for clarity.

In (f)(1), is anything after "threshold" an actual requirement? This appears to be a suggestion.
The first part of the Subparagraph ("use an enforceable limitation…which can be achieved,") is specifying the requirement to keep emissions below 25 tons per year (tpy), and then introduces two options: 1) "using inks and coatings that contain less than 31.25 tons per year volatile organic compound (petroleum ink oil) where a 20% retention factor of petroleum ink

oil applies;" or 2) "by using other methods established by permit conditions." The first option is the method already vetted and recommended by EPA in their Control Technology Guidelines (CTG) to meet the requirement of keeping emissions below 25 tpy (see page 14 of the EPA document linked below), and the second option allows for case-by-case determination of how emissions will be kept below 25 tpy, so long as permit conditions (i.e., enforceable limitations) are added to the facility's permit.

EPA Control Technique Guidelines (CTG) for Lithographic Letterpress Printing:
https://www3.epa.gov/airquality/ctg_act/200609_voc_epa453_r-06-002_litho_letterpress_printing.pdf

If the options here are the only two options, should it say "shall be achieved" instead of "can be achieved"?

"Can" has been replaced by "shall".

In (h)(1) and (2), the Rule cites to 15 NCAC 02D .2602(h) for approval of alternative testing methods. Looking at that rule, deviations from testing procedures may be allowed by the Director under certain circumstances. Where is the Director's statutory authority to alter testing procedures prescribed by the CFR?

N.C.G.S. § 143-215.66 authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources, while N.C.G.S. § 143-215.3(a)(4) authorizes the Commission to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. Here those requirements allow sources to implement alternative testing procedures approved by the Director. There is no federal rule requiring use of Method 24 for determining VOC content from these lithographic letterpress printing operations, or Methods 18, 25, or 25A for measuring VOC at control device inlets and outlets for the purposes of determining control efficiency. As explained in the response to the first comment for Rule 02D .0927, this is a VOC RACT Rule that is based on the EPA's CTG (as required by the CAA), which contains recommendations for various methods of measurement, depending on the application. There may be instances where the specified methods are infeasible or not appropriate for a particular application and the applicant may demonstrate that an alternate method is equivalent or more appropriate pursuant to 15A NCAC 02D .2602. This Rule is EPA-approved into North Carolina's SIP for control of VOC emissions.

Please add citations to 215.66 and 215.3(a)(4) to the History Note.

Added citations to history note.

In (i), line 36, what is a "typical" operating condition?

All tests are performed during "typical" or normal operating conditions. This means that the same day-to-day production prior to the test is used during the test, to ensure that the results of the test are representative of routine operations. For example, typical operating conditions would not include times when maintenance is performed, when the emission source is starting up, control devices are not operating, or the facility is operating at a process rate lower than usual.

Why not say this (or something similar) in the Rule then?

Added phrasing to help provide clarity about "typical" operating conditions"

.0964

In (a)(8), I am not sure the definition for "HVLP" is grammatical. Please revise.

Added an "s" to "provide" to account for "system" being a third person singular noun. HVLP stands for "high-volume low-pressure".
I think "guide" needs to be plural, as well.
Corrected.

In (a)(9), what exactly does the definition for "Miscellaneous industrial adhesives" mean? I'm oversimplifying, but boiled down it just means adhesives used in a variety of industrial settings. I'm not sure this is actually a definition, as it doesn't seem to set one kind of industrial adhesive aside from another. It seems like the term is better defined by the combination of (b) and (c) – adhesives that aren't covered by other 02D rules but which have VOC emissions greater that the threshold in .0902.
A punctuation correction was made to add clarity to this definition and align it with that in EPA's CTG. This definition was looked at and revised recently in 2020 and it was decided that it improved clarity for stakeholders.
I understand that the definition was revised, but I don't see that it actually does the work of being a definition. It does not include some things and exclude others. Looking at the language, I can't tell what would and would not be a miscellaneous industrial adhesive. Is there a way to make this definition more specific?
The intent of the rule is to apply generally to adhesives (and primers used in conjunction with or as part of the adhesive, as provided in the current definition) used in an industrial operation or process, and the inclusion and exclusion of certain adhesives would defeat the purpose of the rule. The rule does exclude certain adhesives because they are covered by other rules so any adhesives not excluded by the rule would be included. The specific identification of each adhesive and industrial operation and process is contrary to the purpose of the rule, which is to regulate any adhesives not covered by other rules in the various industrial processes and operations. Including such a list would also imply that the general rule only applies to certain adhesives not already excluded or covered by other rules, or that each process or operation can only use a certain adhesive in a particular process or operation. It would also imply that any adhesive not listed can be used without regard to VOCs or any other air quality standard.

In (d)(2), line 35, what is a "low" VOC adhesive? Is this term defined?
"Low" VOC means an adhesive containing no VOC or having a low VOC partial pressure, which can result from a low concentration of VOCs in solution/mixture or containing VOCs with a low vapor pressure. The exact content of the adhesive will vary based on the application. From the EPA's CTG upon which this rule is based:

"Lower VOC content adhesives, higher solids adhesives and waterborne adhesives, may be used to reduce VOC emissions by reducing or eliminating the organic solvent present in the adhesive." (p. 9)

"One pollution prevention measure is to substitute higher-solvent adhesives with adhesives containing little or no solvents. As previously discussed, these adhesives include waterborne adhesives, higher solids adhesives, and reactive adhesives. Manufacturers have developed and are continuing to develop waterborne and reactive formulations that replace conventional organic solvent-borne adhesives. These adhesives are generally available. Conversion to waterborne adhesives (for example) can lower VOC emissions greatly, and many miscellaneous industrial adhesive application processes are capable of converting to these adhesives. However, the currently available low-VOC adhesives or adhesives with no solvents

do not meet the performance requirements of some industrial manufacturing applications and therefore are not viable options for these operations." (p. 10)

https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001JFP.txt

Also related to the above text is the definition of "low solvent coating" in 15A NCAC 02D .0901(2), which means: "*means a coating that contains a substantially lower amount of volatile organic compounds than conventional organic solvent borne coatings; it typically falls into one of three major groups of high solids, waterborne, or powder coatings.*"
Is there a reason that the definition you've given in the 1st paragraph of your response can't be added to the Rule? Otherwise can you incorporate the CTG by reference?
There is not a specific threshold that applies across the board, but is determined on a case-by-case basis and can be achieved in a variety of ways, all of which is addressed through permitting. So, in order to have a specific definition, it would also be necessary to have the specifics of the subject facility and operation meaning that the information provided in the response would not clarify the meaning and application of the term.

In (e)(1), p.2, line 11, what does "averaging" mean? Arithmetic mean? Mode? Median?
Averaging refers to the arithmetic mean. Using a mode or median of data would not be an average, but rather one data point from the set. This would exclude much of the data and allow for the omission of important data points.
I've asked about this other places, and your responses indicate that averaging means the arithmetic mean and that there is a process, defined by the CFR, to make that calculation. Here, there doesn't seem to be an outside process that confirms it is arithmetic mean. Since mode or median would, as you've pointed out, exclude data points, I think it's important to specify arithmetic mean here.
Averaging has been replaced by referring to the arithmetic mean for clarity.

In (h), line 8, what is a reactive adhesive?
According to both 40 CFR § 63.3981 and § 63.4591, "Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process." The regulated community understands this term.
Are the two CFR provisions referenced here incorporated anywhere by reference in your Rules?
A cross reference has been added.

.1403
In (b)(2), line 22, what kind of permit application does the Rule refer to? There appear to be several different types of permits contemplated by the Clean Air Act, the CFR, and Article 21B of Chapter 143.
This would be either be a synthetic minor (02Q .0300) or Title V (02Q .0500) permit if potential NOx emissions are greater than 100 tons per year or may require a new source review (NSR) permit if source is in an area of nonattainment for ozone or exceeds 560 pounds per year during the ozone season. The rules to determine which type of permit application is needed are contained in 15A NCAC 02Q.
Why not reference these in the Rule directly, for the sake of clarity?

Cross reference to 15A NCAC 02Q was added. The intent is to require any permit application needed, based on the modification being proposed by the facility. Subchapter 02Q contains the various requirements for determining which type of permit application is needed for the specific proposal.

In (b)(2)(B)(iv), line 29, what is a "limitation"?
A limitation could be an emission limit, a fuel usage limit, or an operational limit. It depends on what the facility agrees to do in the permit.
If the limitation is always in a permit, then why not change this to "permit limitation".
Added "in a permit" after limitation to help clarify.

.1708
In (f), what is a "closure report"? Is this detailed in another rule?
The requirements of a "closure report" are described in detail in 40 CFR 258.60 as referenced in the rule language, which aligns with 40 CFR 60.38f(f).Additionally, this term is well-understood by the regulated community subject to this rule.

40 CFR 258.60:
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-258/subpart-F
A cross reference would be helpful.
The cross reference of line 21 was also added to lines 17-18 of the paragraph (f).

.0102
With respect to (f), where is the Director's authority to require an owner/operator to register pursuant to Section 02D .0200? I looked at 02D .0202 and it says the registration is pursuant to 143-215.107(a)(4). While (a)(4) does appear to give authority to require registration, (a)(4) gives that authority to the Commission, not to the Director.
The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to inter alia the Secretary or any other qualified employee of the Department.
Further, N.C.G.S. 143-215.106 specifies that the Department shall administer the air quality program of the State.
Please add these statutes to the History Note.
The relevant statutes have been added to the History Note.

In (h)(6), where is the statutory authority for allowing the Director to award exemptions?
N.C.G.S. § 143-215.108(a) prohibits activities that contravene or will be likely to contravene standards established pursuant to N.C.G.S. §§ 143-215.107 or 143-215.107D unless obtaining a permit issued pursuant to the EMC's authority. The EMC has adopted rules implementing this permitting program pursuant to *inter alia* N.C.G.S. § 143-215.3 and, as authorized by N.C.G.S. § 143-215.3(a)(4), has delegated authority to the Director to implement the program as provided in the rules. The exemptions listed in this rule have been determined to not contravene the established standards. Here the EMC has delegated authority to the Director, as authorized by N.C.G.S. § 143-215.3(a)(4) to determine that, upon adequate demonstration, certain activities do not contravene established standards and thus do not require a permit.

In addition, N.C.G.S. § 143-215.107(a)(4) and (5) authorize the EMC with the power (emphasis added):

(4) To collect information or to require reporting from classes of sources which, ***in the judgment*** *of the Environmental Management Commission,* ***may cause or contribute to air pollution****…*

(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…*

Please add the relevant statutes not already cited to the History Note.

The relevant statutes have been added to the History Note.

15A NCAC 02D .0614 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0614 COMPLIANCE ASSURANCE MONITORING

(a) General Applicability. Except as set forth in Paragraph (b) of this Rule, the requirements of this ~~Paragraph~~ Rule shall apply to a pollutant-specific emissions ~~unit~~unit, as defined in 40 CFR 64.1, at a facility required to obtain a permit pursuant to 15A NCAC 02Q .0500 if the unit:

(1) is subject to an emission limitation or standard for the applicable regulated air pollutant, or a surrogate thereof, other than an emission limitation or standard that is exempt pursuant to Subparagraph (b)(1) of this Rule;

(2) uses a control device to achieve compliance with any such emission limitation or standard; and

(3) has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this ~~Subparagraph,~~ Rule, "potential pre-control device emissions" means the same as "potential to emit" as defined in ~~15A NCAC 02Q .0103,~~ 40 CFR 64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

(b) The following exemptions to this Rule shall apply.

(1) Exempt emission limitations or standards. The requirements of this Rule shall not apply to any of the following emission limitations or standards:

(A) emission limitations or standards proposed by the Administrator of the Environmental Protection Agency after November 15, 1990, pursuant to section 111 or 112 of the federal Clean Air Act;

(B) stratospheric ozone protection requirements pursuant to Title VI of the federal Clean Air Act;

(C) Acid Rain Program requirements pursuant to sections 404, 405, 406, 407(a), 407(b), or 410 of the federal Clean Air Act;

(D) emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved under the rules of Subchapters 02D and 02Q of this Chapter and that are incorporated in a permit issued pursuant to 15A NCAC 02Q .0500;

(E) an emissions cap that is approved pursuant to the rules of Subchapters 02D and 02Q of this Chapter and incorporated in a permit issued pursuant to 15A NCAC 02Q .0500; or

(F) emission limitations or standards for which a permit issued pursuant to 15A NCAC 02Q .0500 specifies a continuous compliance determination method, as defined in 40 CFR 64.1. This exemption shall not apply if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control ~~device, such as~~ device. Note: for example, a surface coating line controlled by an incinerator for which continuous compliance is

determined by calculating emissions on the basis of coating records and an assumed control device efficiency factor based on an initial performance test. In this example, 15A NCAC 02D .0614 would apply to the control device and capture system, but not to the remaining elements of the coating line, such as raw material usage.

(2) Exemption for backup utility power emissions units. The requirements of this Rule shall not apply to a utility unit, as defined in 40 CFR 72.2, that is municipally-owned if the owner or operator provides documentation in a permit application submitted pursuant to 15A NCAC 02Q .0500 that:

(A) the utility unit is exempt from all monitoring requirements in 40 CFR Part 75, including the appendices thereto;

(B) the utility unit is operated for the sole purpose of providing electricity during periods of peak electrical demand or emergency situations and will be operated consistent with that purpose throughout the permit term. The owner or operator shall provide historical operating data and relevant contractual obligations to document that this criterion is satisfied; and2

(C) the actual emissions from the utility unit, based on the average annual emissions over the last three calendar years of operation, or such shorter time period that is available for units with fewer than three years of operation, are less than 50 tons per year and are expected to remain so.

(c) For the purposes of this Rule, the definitions in 40 CFR 64.1 shall apply with the following exceptions:

(1) "Applicable requirement" and "regulated air pollutant" shall have the same definition as in 15A NCAC 02Q .0103.

(2) "Part 70 or 71 permit application" means an application, or any supplement to a previously submitted application, submitted by the owner or operator to obtain a permit under 15A NCAC 02Q .0500.

(3) "Part 70 or 71 permit" means a permit issued under 15A NCAC 02Q .0500.

(4) "Permitting authority" means the Division of Air Quality.

(d) The owner or operator subject to the requirements of this rule shall comply with these requirements:

(1) 40 CFR 64.3, Monitoring Design Criteria;

(2) 40 CFR 64.4, Submittal Requirements;

(3) 40 CFR 64.5, Deadlines for Submittals;

(4) 40 CFR 64.7, Operation of Approved Monitoring; and

(5) 40 CFR 64.9, Reporting and Recordkeeping Requirements.

(e) The Division shall follow the procedures and requirements in 40 CFR Part 64.6, Approval of Monitoring, in reviewing and approving or disapproving monitoring plans and programs submitted under this Rule.

(f) Based on the result of a determination made pursuant to 40 CFR 64.7(d)(2), the Director may require the owner or operator to develop and implement a quality improvement plan. If a quality improvement plan is required, the

quality improvement plan shall be developed and implemented according to the procedures and requirements of 40 CFR 64.8, Quality Improvement Plan (QIP) Requirements.

History Note: *Authority G.S. 143-215.3(a)(3); 143-215.65; 143-215.66; 143-215.107(a)(4); 143-215.107(a)(10);*
Eff. April 1, 1999;
Amended Eff. January 1, 2009;
Readopted Eff. November 1, ~~2019.~~2019;
Amended Eff. November 1, 2023.

15A NCAC 02D .0918 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0918 CAN COATING

(a) For the purpose of this Rule, the following definitions shall apply:

(1) "End sealing compound" means a synthetic rubber compound that is coated onto can ends and functions as a gasket when the end is assembled on the can.

(2) "Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

(3) "Interior base coating" means a coating applied by roller coater or spray to the interior of a can to provide a protective lining between the can metal and product.

(4) "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

(5) "Overvarnish" means a coating applied directly over ink to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.

(6) "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented, or soldered seam to protect the exposed metal.

(7) "Two-piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(b) This Rule applies to volatile organic compound emissions from coating applicators and ovens of sheet, can, or end coating lines involved in sheet exterior and interior basecoat and overvarnish; two-piece can interior body spray; two-piece spray or roll coat can exterior; and three-piece can side-seam spray and end sealing compound operations.

(c) Unless the exception in Paragraph (d) of this Rule applies, emissions of volatile organic compounds from any can coating line subject to this Rule shall not exceed:

(1) 4.5 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from sheet exterior and interior basecoat and overvarnish or two-piece can exterior basecoat and overvarnish operations;

(2) 9.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from two and three-piece can interior body spray and two-piece spray or roll coat can exterior end operations;

(3) 21.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator ~~from a three-piece applicator from a three-piece can side-seam spray operations;~~from ~~either a three-piece applicator or~~ a ~~three-piece~~ three-piece can side seam spray [~~operations;~~]operation; or

(4) 7.4 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from end sealing compound operations.

(d) Any source that has controlled emissions pursuant to 15A NCAC 02D .0518(e) prior to July 1, 2000 and that has installed air pollution control equipment in accordance with an air quality permit pursuant to 15A NCAC 02Q .0300 or .0500 in order to comply with this Rule before December 1, 1989 may comply with the limits contained in this

Paragraph instead of those contained in Paragraph (c) of this Rule. Emissions of volatile organic compounds from any can coating line subject to this ~~Rule~~Paragraph shall not exceed:

(1) 2.8 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from sheet exterior and interior basecoat and overvarnish or two-piece can exterior basecoat and overvarnish operations;

(2) 4.2 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from two and three-piece can interior body spray and two-piece can spray or roll coat exterior end operations;

(3) 5.5 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from ~~a three-piece applicator from~~ a three-piece can side-seam spray ~~operations;~~ operation; or

(4) 3.7 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from end sealing compound operations.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; July 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0926 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0926 BULK GASOLINE PLANTS

(a) For the purpose of this Rule, the following definitions apply:

(1) "Average daily throughput" means annual throughput of gasoline divided by 312 days per year.

(2) "Bottom filling" means the filling of a cargo tank or stationary storage tank through an opening flush with the tank bottom.

(3) "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline and that typically receives gasoline from bulk terminals by cargo tank transport, stores it in tanks, and subsequently dispenses it via account cargo tanks to farms, businesses, and service stations.

(4) "Bulk gasoline terminal" means a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of greater than or equal to 20,000 gallons of gasoline.

(5) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(6) "Gasoline" means any petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(7) "Incoming vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading cargo tank and a receiving stationary storage tank such that vapors displaced from the receiving stationary storage tank are transferred to the cargo tank being unloaded.

(8) "Outgoing vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading stationary storage tank and a receiving cargo tank such that vapors displaced from the receiving cargo tank are transferred to the stationary storage tank being unloaded.

(9) "Splash filling" means the filling of a cargo tank or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

(10) "Submerged filling" means the filling of a cargo tank or stationary tank through a pipe or hose whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or whose discharge opening is entirely submerged when the liquid level is six inches above the bottom of the tank.

(b) This Rule applies to the unloading, loading, and storage facilities of all bulk gasoline plants, and of all cargo tanks delivering or receiving gasoline at bulk gasoline plants except stationary storage tanks with capacities less than 528 gallons.

(c) The owner or operator of a bulk gasoline plant shall not transfer gasoline to ~~any~~ a stationary storage ~~tanks~~ tank unless the unloading cargo tank and the receiving stationary storage tank are equipped with an incoming vapor balance system as described in Paragraph (i) of this Rule and the receiving stationary storage tank is equipped with a fill line whose discharge opening is flush with the bottom of the ~~tank.~~ tank such that bottom filling can be achieved.

(d) The owner or operator of a bulk gasoline plant with an average daily gasoline throughput of 4,000 gallons or more shall not load a cargo tank at such plant unless the unloading stationary storage tank and the receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling.

(e) The owner or operator of a bulk gasoline plant with an average daily throughput of more than 2,500 gallons but less than 4,000 gallons located in an area with a housing density exceeding the limits in this Paragraph shall not load any cargo tank at such bulk gasoline plant unless the unloading stationary storage tank and receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling. In the counties of Alamance, Buncombe, Cabarrus, Catawba, Cumberland, Davidson, Durham, Forsyth, Gaston, Guilford, Mecklenburg, New Hanover, Orange, Rowan, and Wake, the specified limit on housing density is 50 residences in a square one mile on a side with the square centered on the loading rack at the bulk gasoline plant and with one side oriented in a true North-South direction. In all other counties the specified limit on housing density is 100 residences per square mile. The housing density shall be determined by counting the number of residences using aerial photographs or other methods approved by the Director to provide equivalent accuracy.

(f) The owner or operator of a bulk gasoline plant not subject to the outgoing vapor balance system requirements of Paragraph (d) or (e) of this Rule shall not load cargo tanks at such plants unless:

(1) equipment is available and used at the bulk gasoline plant to provide for submerged filling of each cargo tank; or

(2) each receiving cargo tank is equipped for bottom filling.

(g) For gasoline bulk plants located in a nonattainment area for ozone, the owner or operator shall continue to comply with Paragraph (d) or (e) of this Rule even if the average daily throughput falls below the applicable threshold if ever the facility throughput triggered compliance.

(h) The owner or operator of a bulk gasoline plant shall ensure a cargo tank that is required to be equipped with a vapor balance system pursuant to Paragraphs (c), (d), or (e) of this Rule shall not transfer gasoline between the cargo tank and the stationary storage tank unless:

(1) the vapor balance system is ~~in good working order and is connected and operating;~~ connected, operating, and working as designed in accordance with the manufacturer's specifications and the definition of "good operation and maintenance" in 15A NCAC 02D .0602;

(2) cargo tank hatches are closed at all times during loading and unloading operations; and

(3) the cargo tank's pressure/vacuum relief valves, hatch covers, and the cargo tank's and storage tank's associated vapor and liquid lines are ~~vapor tight~~ vapor-tight, as defined in 40 CFR 60.501 and 63.11132, as applicable, during loading or unloading.

(i) Vapor balance systems required under Paragraphs (c), (d), and (e) of this Rule shall consist of the following major components:

(1) a vapor space connection on the stationary storage tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material;

(2) a connecting pipe or hose equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material; and

(3) a vapor space connection on the cargo tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material.

(j) The owner or operator of a bulk gasoline plant shall paint all tanks used for gasoline storage white or silver.

(k) The pressure relief valves on cargo tanks loading or unloading at bulk gasoline plants shall be set to release at the highest possible pressure in accordance with State or local fire codes or the National Fire Prevention Association Guidelines. The pressure relief valves on stationary storage tanks shall be set at 0.5 psi for storage tanks placed in service on or after November 1, 1992, and 0.25 psi for storage tanks existing before November 1, 1992.

(l) No owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation.

(m) The owner or operator of a bulk gasoline plant shall observe loading and unloading operations and shall discontinue the transfer of gasoline:

(1) if any liquid leaks are observed; or

(2) if any vapor leaks are observed where a vapor balance system is required under Paragraphs (c), (d), or (e) of this Rule.

(n) The owner or operator of a bulk gasoline plant shall not load, or allow to be loaded, gasoline into any cargo tank unless the cargo tank has been certified leak tight in accordance with 15A NCAC 02D ~~.0932, .0960, and .2615.~~.0932.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; May 1, 1993; March 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0927 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0927 BULK GASOLINE TERMINALS

(a) For the purpose of this Rule, the following definitions apply:

(1) "Bulk gasoline terminal" means:

(A) a pipeline breakout station of an interstate oil pipeline facility; or

(B) a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of more than 20,000 gallons of gasoline.

(2) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(3) "Contact deck" means a deck in an internal floating roof tank that rises and falls with the liquid level and floats in direct contact with the liquid surface.

(4) "Degassing" means the process by which a tank's interior vapor space is decreased to below the lower explosive limit for the purpose of cleaning, inspection, or repair.

(5) "Gasoline" means a petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(6) "Leak" means a crack or hole letting petroleum product vapor or liquid escape that is identifiable through sight, sound, smell, an explosimeter, or the use of a meter that measures volatile organic compounds. When an explosimeter or meter is used to detect a leak, a leak is a measurement that is equal to or greater than 100 percent of the lower explosive limit, as detected by a combustible gas detector using the test procedure described in Appendix B of EPA-450/2-78-051. This test procedure is incorporated by reference, including any subsequent amendments and editions. A copy of this test procedure may be obtained free of charge at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000M9RD.PDF?Dockey=2000M9RD.PDF.

(7) "Liquid balancing" means a process used to degas floating roof gasoline storage tanks with a liquid whose vapor pressure is below 1.52 psi. This is done by removing as much gasoline as possible without landing the roof on its internal supports, pumping in the replacement fluid, allowing mixing, ~~remove~~ removing as much mixture as possible without landing the roof, and repeating these steps until the vapor pressure of the mixture is below 1.52 psi.

(8) "Liquid displacement" means a process by which gasoline ~~vapors,~~vapors remaining in an empty ~~tank,~~tank are displaced by a liquid with a vapor pressure below 1.52 psi.

(9) "Pipeline breakout station" means a facility along a pipeline containing storage tanks used to:

(A) relieve surges in a hazardous liquid pipeline system; or

(B) receive and store hazardous liquids transported by pipeline for reinjection and continued transport by pipeline.

For the purposes of this definition, “hazardous liquid” means the materials listed in 49 CFR 195.2.

(b) This Rule applies to bulk gasoline terminals and the appurtenant equipment necessary to load the cargo tank compartments.

(c) Gasoline shall not be loaded into any cargo tank from any bulk gasoline terminal unless:

(1) the bulk gasoline terminal is equipped with a vapor control system that prevents the emissions of volatile organic compounds from exceeding 35 milligrams per liter. The owner or operator shall obtain from the manufacturer and maintain in the cargo tank's records a pre-installation certification stating the vapor control efficiency of the system in use;

(2) displaced vapors and gases are vented only to the vapor control system or to a flare;

(3) a means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and

(4) all loading and vapor lines are equipped with fittings that make vapor-tight connections and that are automatically and immediately closed upon disconnection.

(d) Sources regulated by this Rule shall not:

(1) allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation; or

(2) allow the pressure in the vapor collection system to exceed the cargo tank pressure relief settings.

(e) The owner or operator of a bulk gasoline terminal shall paint all tanks used for gasoline storage white or silver.

(f) The owner or operator of a bulk gasoline terminal shall install on each external floating roof tank with an inside diameter of 100 feet or less used to store gasoline a self-supporting roof, such as a geodesic dome.

(g) The following equipment shall be required on all tanks storing gasoline at a bulk gasoline terminal:

(1) rim-mounted secondary seals on all external and internal floating roof tanks;

(2) gaskets on deck fittings; and

(3) floats in the slotted guide poles with a gasket around the cover of the poles.

(h) Decks shall be required on all above ground tanks with a capacity greater than 19,800 gallons storing gasoline at a bulk gasoline terminal. All decks installed after June 30, 1998 shall comply with the following requirements:

(1) deck seams shall be welded, bolted, or riveted; and

(2) seams on bolted contact decks and on riveted contact decks shall be gasketed.

(i) If, upon facility or operational modification of a bulk gasoline terminal that existed before December 1, 1992, an increase in benzene emissions results such that:

(1) emissions of volatile organic compounds increase by more than 25 tons cumulative at any time during the five years following modifications; and

(2) annual emissions of benzene from the ~~cluster where~~ cluster, which includes the bulk gasoline terminal, ~~terminal is located (including~~ the ~~pipeline~~pipeline, and marketing terminals served by the ~~pipeline)~~ pipeline, exceed benzene emissions from that cluster based upon calendar year 1991 gasoline throughput and application of the requirements of this Subchapter,

then, the annual increase in benzene emissions due to the modification shall be offset within the ~~cluster~~ by reduction in benzene emissions beyond that otherwise achieved from compliance with this Rule, in the ratio of at least 1.3 to 1.

(j) To qualify for exemption from the requirements under Paragraphs (e) through (i) of this Rule, the ~~The~~ owner or operators of a bulk gasoline terminal that received an air quality permit before December 1, 1992 to emit toxic air pollutants under 15A NCAC 02Q .0700 to comply with 15A NCAC 02D .1100 shall continue to follow all terms and conditions of the permit issued under 15A NCAC 02Q .0700 and to bring the terminal into compliance with 15A NCAC 02D .1100 according to the terms and conditions of the permit, and shall ~~in which case the bulk gasoline terminal shall continue to need a~~ maintain this permit to emit toxic air ~~pollutants~~ pollutants. ~~and shall be exempted from Paragraphs (e) through (i) of this Rule.~~

(k) The owner or operator of a bulk gasoline terminal shall not load, or allow to be loaded, gasoline into any cargo tank unless the cargo tank has been certified leak tight according to 15A NCAC 02D ~~.0932, .0960, and .2615.~~.0932.

(l) The owner or operator of a bulk gasoline terminal shall have on file at the terminal a copy of the certification test conducted according to 15A NCAC 02D .0932 for each gasoline cargo tank loaded at the terminal.

(m) Emissions of gasoline from degassing of external or internal floating roof tanks at a bulk gasoline terminal shall be collected and controlled by at least 90 percent by weight. Liquid balancing shall not be used to degas gasoline storage tanks at bulk gasoline terminals. Bulk gasoline storage tanks containing not more than 138 gallons of liquid gasoline or the equivalent of gasoline vapor and gasoline liquid are exempted from the degassing requirements if gasoline vapors are vented for at least 24 hours. Documentation of degassing external or internal floating roof tanks shall be made according to 15A NCAC 02D .0903.

(n) ~~According to 15A NCAC 02D .0903, the~~The owner or operator of a bulk gasoline terminal shall visually inspect the following for leaks each day that the terminal is both manned and open for business:

(1) the vapor collection system;

(2) the vapor control system; and

(3) each lane of the loading rack while a gasoline cargo tank is being loaded.

In accordance with 15A NCAC 02D .1903, the owner or operator shall maintain records of the visual inspections. If no leaks are found, the owner or operator shall record that no leaks were found. If a leak is found, the owner or operator shall record the information specified in Paragraph (p) of this Rule. The owner or operator shall repair all leaks found according to Paragraph (q) of this Rule.

(o) The owner or operator of a bulk gasoline terminal shall inspect weekly for leaks:

(1) the vapor collection system;

(2) the vapor control system; and

(3) each lane of the loading rack while a gasoline cargo tank is being loaded.

The weekly inspection shall be done using sight, sound, or smell; a meter used to measure volatile organic compounds; or an explosimeter. An inspection using either a meter used to measure volatile organic compounds or an explosimeter shall be conducted every month. If no leaks are found, the owner or operator shall record the date that the inspection was done and that no leaks were found. If a leak is found, the owner or operator shall record the information specified

in Paragraph (p) of this Rule. The owner or operator shall repair all leaks found according to Paragraph (q) of this Rule.

(p) For each leak found under Paragraph (n) or (o) of this Rule, the owner or operator of a bulk gasoline terminal shall record:

(1) the date of the inspection;

(2) the findings detailing the location, nature, and severity of each leak;

(3) the corrective action taken;

(4) the date when corrective action was completed; and

(5) any other information that the terminal deems necessary to demonstrate ~~compliance.~~compliance with this Rule.

(q) The owner or operator of a bulk gasoline terminal shall repair all leaks as follows:

(1) The vapor collection hose that connects to the cargo tank shall be repaired or replaced before another cargo tank is loaded at that rack after a leak has been detected originating with the terminal's equipment rather than from the gasoline cargo tank.

(2) All other leaks shall be repaired as expeditiously as possible but no later than 15 days from their detection. If more than 15 days are required to make the repair, the reasons that the repair cannot be made shall be documented, and the leaking equipment shall not be used after the fifteenth day from when the leak detection was found until the repair is made.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. January 1, 2007; April 1, 2003; August 1, 2002; July 1, 1998; July 1, 1996; July 1, 1994; December 1, 1992; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0928 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0928 GASOLINE SERVICE STATIONS STAGE I

(a) Definitions. For the purpose of this Rule, the following definitions apply:

(1) "Coaxial vapor recovery system" means the delivery of the gasoline and recovery of vapors occurring through a single coaxial fill tube, which is a tube within a tube. Gasoline is delivered through the inner tube, and vapor is recovered through the annular space between the walls of the inner tube and outer tube.

(2) "Delivery vessel" means cargo tanks used for the transport of gasoline from sources ~~or~~of supply to stationary storage tanks of gasoline dispensing facilities.

(3) "Dual point vapor recovery system" means the delivery of the product to the stationary storage tank and the recovery of vapors from the stationary storage tank occurring through two separate openings in the storage tank and two separate hoses between the cargo tank and the stationary storage tank.

(4) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psi or greater.

(5) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

(6) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.

(7) "Line" means any pipe suitable for transferring gasoline.

(8) "Motor Vehicle" means every vehicle which is self-propelled and every vehicle designed to run upon the highways which is pulled by a self-propelled [~~vehicle~~]vehicle. This term shall not ~~including~~ include mopeds or electric assisted bicycles in accordance with N.C. Gen. Stat. 20-4.01.

~~(8)~~(9) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.

~~(9)~~(10) "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.

~~(10)~~(11) "Poppeted vapor recovery adaptor" means a vapor recovery adaptor that automatically and immediately closes itself when the vapor return line is disconnected and maintains a tight seal when the vapor return line is not connected.

~~(11)~~(12) "Stationary storage tank" means a gasoline storage container that is a permanent fixture.

~~(12)~~(13) "Submerged fill pipe" means any fill pipe with a discharge opening that is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or that is entirely submerged when the level of the liquid is:

(A) six inches above the bottom of the tank if the tank does not have a vapor recovery adaptor; or

(B) 12 inches above the bottom of the tank if the tank has a vapor recovery adaptor. If the opening of the submerged fill pipe is cut at a slant, the distance is measured from the top of the slanted cut to the bottom of the tank.

~~(13)~~(14) "Throughput" means the amount of gasoline dispensed at a facility during a calendar month after November 15, 1990.

(b) Applicability. This Rule applies to all gasoline dispensing facilities and gasoline service stations, and to delivery vessels delivering gasoline to a gasoline dispensing facility or gasoline service station.

(c) Exemptions. This Rule does not apply to:

(1) transfers made to storage tanks at gasoline dispensing facilities or gasoline service stations equipped with floating roofs or ~~their equivalent;~~technology that achieves equivalent or greater emission reductions as a floating roof;

(2) stationary tanks with a capacity of not more than 2,000 gallons that are in place before July 1, 1979, if the tanks are equipped with a permanent or portable submerged fill pipe;

(3) stationary storage tanks with a capacity of not more than 550 gallons that are installed after June 30, 1979, if tanks are equipped with a permanent or portable submerged fill pipe;

(4) stationary storage tanks with a capacity of not more than 2,000 gallons located on a farm or a residence and used to store gasoline for farm equipment or residential use if gasoline is delivered to the tank through a permanent or portable submerged fill pipe. This exemption does not apply in ozone non-attainment areas;

(5) stationary storage tanks at a gasoline dispensing facility or gasoline service station where the combined annual throughput of gasoline at the facility or station does not exceed 50,000 gallons, if the tanks are permanently equipped with submerged fill pipes; or

(6) any tanks used exclusively to test the fuel dispensing meters.

(d) With exceptions stated in Paragraph (c) of this Rule, gasoline shall not be transferred from any delivery vessel into any stationary storage tank unless:

(1) the tank is equipped with a submerged fill pipe, and the vapors displaced from the storage tank during filling are controlled by a vapor control system as described in Paragraph (e) of this Rule;

(2) the vapor control system ~~is in good working order and~~ is connected and operating with a vapor tight ~~connection;~~connection, and working as designed in accordance with the manufacturer's specifications;

(3) the vapor control system is ~~properly~~ maintained in accordance with the manufacturer's specifications and the definition of "good operation and maintenance" in 15A NCAC 02D .0602, and all damaged or malfunctioning components or elements of design are repaired, replaced, or modified;

(4) the gauges, meters, or other specified testing devices are maintained in accordance with the manufacturer's specifications and the definition of "good operation and maintenance" in 15A NCAC 02D .0602; ~~in proper working order;~~

(5) the delivery vessel and vapor collection system ~~complies~~comply with 15A NCAC 02D .0932; and

(6) the following records are kept in accordance with 15A NCAC 02D .0903:

(A) the scheduled date for maintenance or the date that a malfunction was detected;

(B) the date the maintenance was performed or the malfunction corrected; and

(C) the component or element of design of the control system repaired, replaced, or modified.

(e) The vapor control system required by Paragraph (d) of this Rule shall include one or more of the following:

(1) a vapor-tight line from the storage tank to the delivery vessel, and:

(A) for a coaxial vapor recovery system, either a poppeted or unpoppeted vapor recovery adaptor;

(B) for a dual point vapor recovery system, a poppeted vapor recovery adaptor; or

(2) a refrigeration-condensation system or equivalent system designed to recover at least 90 percent by weight of the volatile organic compounds in the displaced vapor.

(f) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the tank liquid fill connection shall remain covered either with a vapor-tight cap or a vapor return line, except when the vapor return line is being connected or disconnected.

(g) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the unpoppeted vapor recovery adaptor shall be replaced with a poppeted vapor recovery adaptor when the tank is replaced or is removed and upgraded.

(h) Where vapor lines from the storage tanks are manifolded, poppeted vapor recovery adapters shall be used. No more than one tank is to be loaded at a time if the manifold vapor lines are size 2.5 inches and smaller. If the manifold vapor lines are 3.0 inches and larger, then two tanks at a time may be loaded.

(i) Vent lines on tanks with Stage I controls shall have pressure release valves or restrictors.

(j) The vapor-laden delivery vessel:

(1) shall be designed and maintained to be vapor-tight during loading and unloading operations and during transport with the exception of normal pressure/vacuum venting as required by the Department of Transportation; and

(2) if it is refilled in North Carolina, shall be refilled only at:

(A) bulk gasoline plants complying with 15A NCAC 02D .0926; or

(B) bulk gasoline terminals complying with 15A NCAC 02D .0927 or .0524.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; July 1, 1994; March 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0932 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0932 GASOLINE CARGO TANKS AND VAPOR COLLECTION SYSTEMS

(a) For the purposes of this Rule, the following definitions apply:

(1) "Bottom filling" means the filling of a cargo tank or stationary storage tank through an opening flush with the tank bottom.

(2) "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline and that typically receives gasoline from bulk terminals by ~~trailer~~cargo tank transport, stores it in tanks, and subsequently dispenses it via account cargo tanks to local farms, businesses, and service stations.

(3) "Bulk gasoline terminal" means:

(A) a pipeline breakout station of an interstate oil pipeline facility; or

(B) a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of more than 20,000 gallons of gasoline.

(4) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(5) "Cargo tank testing facility" means any facility complying with registration in 49 CFR Part 107, Subpart F.

(6) "Cargo tank vapor collection equipment" means any piping, hoses, and devices on the cargo tank used to collect and route gasoline vapors in the tank to or from the bulk gasoline terminal, bulk gasoline plant, gasoline dispensing facility, or gasoline service station vapor control system or vapor balance system.

(7) "Gasoline" means any petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(8) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks. For the purposes of this definition, "motor vehicle" has the meaning defined in 15A NCAC 02D .0928.

(9) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.

(10) "Vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(11) "Vapor collection system" means a vapor balance system or any other system used to collect and control emissions of volatile organic compounds.

(b) This Rule applies to gasoline cargo tanks that are equipped for vapor collection and to vapor control systems at bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations equipped with vapor balance or vapor control systems.

(c) For cargo tanks, the following requirements shall apply:

(1) Gasoline cargo tanks and their vapor collection systems shall be tested annually by a cargo tank testing facility. The facility shall follow the test procedure as defined by 15A NCAC 02D .2615 to certify the gasoline cargo tank leak tight. The gasoline cargo tank shall not be used unless it is certified leak tight.

(2) Each gasoline cargo tank that has been certified leak tight according to Subparagraph ~~(1) of this Paragraph~~(c)(1) of this Rule shall display a sticker near the Department of Transportation certification plate required by 49 CFR 180.415.

(3) There shall be no liquid leaks from any gasoline cargo tank.

(4) Any cargo tank with a leak equal to or greater than 100 percent of the lower explosive limit, as detected by a combustible gas detector using the test procedure described in 15A NCAC 02D .2615 shall not be used beyond 15 days after the leak has been discovered, unless the leak has been repaired and the cargo tank has been certified to be leak tight according to Subparagraph ~~(1) of this Paragraph.~~ (c)(1) of this Rule.

(5) The owner or operator of a gasoline cargo tank with a vapor collection system shall maintain records of all leak testing and repairs. The records shall identify the gasoline cargo tank, the date of the test or repair, and, if applicable, the type of repair and the date of retest. The records of leak tests shall include:

(A) the name, address, and telephone number of cargo tank testing facility performing the leak test;

(B) the name and signature of the individual performing the leak test;

(C) the name and address of the owner of the tank;

(D) the identification number of the tank;

(E) the documentation of tests performed including the date and summary of results;

(F) the continued qualification statement and returned to service status; and

(G) a list or description of identified corrective repairs to the tank. If none are performed then the report shall state "no corrective repairs performed."

(6) A copy of the most recent leak testing report shall be kept with the cargo tank. The owner or operator of the cargo tank shall also file a copy of the most recent leak testing report with each bulk gasoline terminal that loads the cargo tank. The owner or operator shall maintain records ~~shall be maintained~~ for at least two years after the date of the testing or ~~repair,~~ repair and make copies of such records ~~shall be made~~ available ~~within a reasonable time~~ to the Director upon written request.

(d) For bulk gasoline terminals and bulk gasoline plants equipped with vapor balance or vapor control systems, the following requirements shall apply:

(1) The vapor collection system and vapor control system shall be designed and operated to prevent gauge pressure in the cargo tank from exceeding 18 inches of water and to prevent a vacuum of greater than six inches of water.

(2) During loading and unloading operations there shall be:

(A) no vapor leakage from the vapor collection system such that a reading equal to or greater than 100 percent of the lower explosive limit at one inch around the perimeter of each potential leak source as detected by a combustible gas detector using the test procedure described in 15A NCAC 02D .2615; and

(B) no liquid leaks.

(3) If a leak is discovered that exceeds the limit in Subparagraph ~~(2) of this Paragraph:~~(d)(2) of this Rule:

(A) For bulk gasoline plants, the vapor collection system or vapor control system shall not be used beyond 15 days after the leak has been discovered, unless the leak has been repaired and the system has been retested and found to comply with Subparagraph ~~(2) of this Paragraph;~~(d)(2) of this Rule;

(B) For bulk gasoline terminals, the vapor collection system or vapor control system shall be repaired following the procedures in 15A NCAC 02D .0927.

(4) The owner or operator of a vapor collection system at a bulk gasoline plant or a bulk gasoline terminal shall test, according to Rule 15A NCAC 02D .0912, the vapor collection system at least once per year. If after two complete annual checks no more than 10 leaks are found, the Director shall allow less frequent monitoring. If more than 20 leaks are found, the Director shall require the frequency of monitoring be increased.

(5) The owner or operator of vapor control systems at bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations equipped with vapor balance or vapor control systems shall maintain records of all certification testing and repairs. The records shall identify each vapor collection system, or vapor control system; the date of the test or repair; and, if applicable, the type of repair and the date of retest.

History Note: *Authority G.S.* ~~*143-215.3(a)(1);*~~ *143-215.3(a)(1), (a)(4);* ~~*143-215.107(a)(5);*~~ *143-215.107;* *143-215.66*
Eff. July 1, 1980;
Amended Eff. August 1, 2008; June 1, 2008; January 1, 2007; April 1, 2003; August 1, 2002; July 1, 1994; December 1, 1989; January 1, 1985;
Readopted Eff. October 1, ~~*2020.*~~*2020;*
Amended Eff. November 1, 2023.

15A NCAC 02D .0961 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0961 OFFSET LITHOGRAPHIC PRINTING AND LETTERPRESS PRINTING

(a) For the purposes of this Rule, the definitions listed in this Paragraph and 15A NCAC 02D .0101 and .0902 shall apply.

(1) "Composite partial vapor pressure" means the sum of the partial pressure of the compounds defined as volatile organic compounds. Volatile organic compounds composite partial vapor pressure is calculated as follows:

$$PP_c = \sum_{i=1}^{n} \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_c}{MW_c} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

Where:

Wi = Weight of the "i" volatile organic compound, in grams

Ww = Weight of water, in grams

Wc = Weight of exempt compound, in grams

MWi = Molecular weight of the "i" volatile organic compound, in g/g-mole

MWw = Molecular weight of water, in g/g-mole

MWc = Molecular weight of exempt compound, in g/g-mole

PPc = Volatile organic compounds composite partial vapor pressure at 20 degrees Celsius (68 degrees Fahrenheit), in mm Hg

VPi = Vapor pressure of the "i" volatile organic compound at 20 degrees Celsius (68 degrees Fahrenheit), in mm Hg

(2) "First installation date" means the actual date when this control device becomes operational. This date does not change if the control device is later redirected to a new press.

(3) "Fountain solution" means water-based solution that applies to lithographic plate to render the non-image areas unreceptive to the ink.

(4) "Heatset" means any operation in which heat is required to evaporate ink oils from the printing ink, excluding ultraviolet (UV) curing, electron beam curing, and infrared drying.

(5) "Letterpress printing" means a printing process in which the image area is raised relative to the non-image area and the paste ink is transferred to the substrate directly from the image surface.

(6) ~~"Non-heatset"~~ "Non-heatset," also referred to as "coldset," means a lithographic printing process where the printing inks are set by absorption or oxidation of the ink oil, not by evaporation of the ink oils in a dryer. For the purposes of this Rule, use of an infrared heater or printing conducted using ultraviolet-cured or electron beam-cured inks is considered non-heatset.

(7) "Offset lithography" means a printing process that uses sheet-fed or web method of press feeding and transfers ink from the lithographic plate to a rubber-covered intermediate "blanket" cylinder and then from the blanket cylinder to the substrate.

(8) "Press" means a printing production assembly composed of one or more units used to produce a printed substrate including any associated coating, spray powder application, heatset web dryer, ultraviolet or electron beam curing units, or infrared heating units.

(9) "Sheet-fed printing" means offset lithographic printing when individual sheets of paper or other substrate are fed to the press.

(10) "Web printing" means offset lithographic printing when continuous rolls of substrate material are fed to the press and rewound or cut to size after printing.

(b) This Rule applies to any offset lithographic and any letterpress printing operations sources that are not covered by 15A NCAC 02D .0966(c)(1) and whose emissions of volatile organic compounds exceed:

(1) the threshold established in 15A NCAC 02D .0902(b) and (f); or

(2) an equivalent level of three tons per 12-consecutive month rolling period.

(c) Volatile organic compounds content in the fountain solution for on-press (as-applied) heatset web offset lithographic printing shall meet one of the following requirements or the owner or operator may demonstrate a different method that achieves an equivalent or greater level of control to those listed below, as determined in permit conditions:

(1) contain 1.6 percent alcohol or less, by weight, as applied, in the fountain solution:

(2) contain three percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the fountain solution is refrigerated to below 60 degrees Fahrenheit; or

(3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the fountain solution.

(d) Volatile organic compounds content in the fountain solution for on-press (as-applied) sheet-fed lithographic printing shall meet one of the following requirements or the owner or operator may demonstrate a different method that achieves an equivalent or greater level of control to those listed below, as determined in permit conditions:

(1) contain five percent alcohol or less, by weight, on-press (as-applied) in the fountain solution;

(2) contain 8.5 percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the fountain solution is refrigerated to below 60 degrees Fahrenheit; or

(3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the fountain solution.

(e) Volatile organic compounds content in emissions from fountain solution from non-heatset web offset lithographic printing shall not exceed five percent alcohol substitute (by weight) on-press (as-applied) and contain no alcohol in the fountain solution.

(f) An owner or operator of an individual web offset lithographic printing press dryer or letterpress-printing heatset press subject to this Rule that has potential emissions of ~~emits~~ 25 or more tons per year ~~potential emissions~~ of volatile organic compounds shall:

(1) use an enforceable limitation on potential emissions to keep individual heatset press below 25 tons per year potential to emit volatile organic compounds (petroleum ink oil) threshold, which ~~can~~shall be achieved by using inks and coatings that contain less than 31.25 tons per year volatile organic

compound (petroleum ink oil) where 20 percent retention factor of petroleum ink oil applies, or by using other methods established by permit conditions; or

(2) use an add-on control system that meets one of the following requirements:

(A) reduces volatile organic compounds emissions from each dryer by at least 90 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was prior to July 1, 2010, at facilities with potential to emit 100 tons or more of volatile organic compounds per year;

(B) reduces volatile organic compounds emissions from each dryer by at least 90 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was prior to May 1, 2013, at facilities with potential to emit less than 100 tons of volatile organic compounds per year;

(C) reduces volatile organic compounds emissions from each dryer by at least 95 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was on or after July 1, 2010, at facilities with potential to emit 100 tons or more of volatile organic compounds per year;

(D) reduces volatile organic compounds emissions from each dryer by at least 95 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was on or after May 1, 2013, at facilities with potential to emit less than 100 tons of volatile organic compounds per year; or

(E) maintains a maximum volatile organic compounds outlet concentration of 20 parts per million by volume (ppmv), as hexane (C_6H_{14}) on a dry basis.

(g) The control limits established in:

(1) Paragraphs (c), (d), and (e) of this Rule shall not be applied to any press with total fountain solution reservoir of less than one gallon;

(2) Paragraph (d) of this Rule shall not be applied to sheet-fed presses with maximum sheet size 11x 17 inches or smaller; and

(3) Subparagraph (f)(2) of this Rule shall not be applied to a heatset press used for book printing, or to a heatset press with maximum web width of 22 inches or less.

(h) If the owner or operator of a printing press is required by permit conditions to determine:

(1) the volatile organic compounds content, Method 24 of Appendix A to 40 CFR Part 60 or approved alternative methods pursuant to 15A NCAC 02D .2602(h) shall be used; and

(2) the control efficiency by measuring volatile organic compounds at the control device inlet and outlet, Methods 18, 25, or 25A of Appendix A to 40 CFR Part 60, or approved alternative methods pursuant to 15A NCAC 02D .2602(h) shall be used.

(i) All test methods defined in Paragraph (h) of this Rule shall be conducted at typical operating conditions and flow ~~rates.~~rates using the same day-to-day production prior to the test to ensure that the test results are representative of routine operations.

(j) The owner or operator of any facility subject to this Rule shall demonstrate compliance with RACT applicability requirements by calculating volatile organic compounds emissions and keep records of the basis of the calculations required by 15A NCAC 02D .0605 and .0903. Volatile organic compounds emissions from offset lithographic printing and letterpress printing shall be determined by permit condition requirements or by using the following retention and capture efficiency factors:

(1) the retention factors are:

(A) 20 percent for heatset petroleum ink oils;

(B) 100 percent for heatset vegetable ink oils;

(C) 95 percent for sheet-fed and coldset web petroleum ink oils; and

(D) 100 percent for sheet-fed and coldset web vegetable ink oils.

(2) the retention factor is 50 percent for low volatile organic compounds composite vapor pressure cleaning materials in shop towels where:

(A) volatile organic compounds composite vapor pressure of the cleaning material is less than 10 mm Hg at ~~20ºC;~~ 20 degrees Celsius; and

(B) cleaning materials and used shop towels are kept in closed containers.

(3) carryover (capture) factors of volatile organic compounds from automatic blanket wash and fountain solution to offset lithographic heatset dryers are:

(A) 40 percent VOC carryover (capture) factor for automatic blanket washing when the volatile organic compounds composite vapor pressure of the cleaning material is less than 10mm Hg at ~~20ºC.~~ 20 degrees Celsius.

(B) 70 percent VOC carryover (capture) factor for alcohol substitutes in fountain solution.

(4) capture efficiency for volatile organic compounds (petroleum ink oils) from oil-based paste inks and oil-based paste varnishes (coatings) in heatset web offset lithographic presses and heatset web letterpress presses shall be demonstrated by showing that the dryer is operating at negative pressure relative to the surrounding pressroom. As long as the dryer is operated at negative pressure, the capture efficiency for VOC from the heatset lithographic inks and varnishes (coatings) formulated with low volatility ink oils is 100 percent of the VOC (ink oils) volatilized in the dryer. Capture efficiency test is not required in this situation.

(k) Except as specified in this Paragraph, all cleaning materials used for cleaning a press, press parts, or to remove dried ink from areas around the press shall meet one of the following requirements:

(1) the volatile organic compounds content shall be less than 70 percent by weight; or

(2) composite partial vapor pressure of volatile organic compounds shall be less than 10 mm Hg at 20 degrees Celsius.

No more than 110 gallons per year of cleaning materials that do not meet the requirements of Subparagraph ~~(1) or (2) of this Paragraph~~ (k)(1) or (k)(2) of this Rule shall be used during any 12 consecutive months.

(l) The owner or operator of any facility subject to this Rule shall maintain the following records for a minimum of five years:

(1) parametric monitoring for processes and control devices as determined and at the frequency specified in the permit or by Paragraph (f) of this Rule;

(2) the total amount of each individual or class of fountain solution and ink used monthly for the printing operations and the percentage of volatile organic compounds, alcohol, and alcohol substitute as applied in it;

(3) the total amount of each individual or class of cleaning solutions used monthly with vapor pressure and the percentage of volatile organic compounds as applied in it;

(4) the total amount of cleaning solutions used monthly with the vapor pressure and the percentage of volatile organic compounds as applied ~~that does not meet~~not meeting the vapor pressure or percentage of volatile organic compounds ~~requirements of~~as required in Paragraph (k) of this Rule;

(5) the temperature of fountain solutions for lithographic printing presses using alcohol at the frequency specified in the permit; and

(6) any other parameters required by the permit in accordance with 15A NCAC 02D .0605 and .0903.

(m) The owner or operator of any source subject to this Rule shall comply with 15A NCAC 02D .0903 and .0958.

History Note: *Authority G.S. ~~143-215.3(a)(1);~~ 143-215.3(a)(1), (a)(4); 143-215.66; 143-215.107(a)(5);*
Eff. September 1, 2010;
Amended Eff. May 1, 2013;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0964 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0964 MISCELLANEOUS INDUSTRIAL ADHESIVES

(a) For the purpose of this Rule, the following definitions apply:

(1) "Air-assisted airless spray" means a system that consists of an airless spray gun with a compressed air jet at the gun tip to atomize the adhesive.

(2) "Airless spray" means the application ~~of~~using a pump forcing an adhesive through an atomizing nozzle at high pressure of 1,000 to 6,000 pounds per square ~~inch by a pump forces.~~inch.

(3) "Application process" means a process that consists of a series of one or more adhesive applicators and any associated drying area or oven where an adhesive is applied, dried, and cured.

(4) "Dip coating" means application where substrates are dipped into a tank containing the adhesive. The substrates are then withdrawn from the tank and any excess adhesive is allowed to drain.

(5) "Electrocoating" means a specialized form of dip coating where opposite electric charges are applied to the waterborne adhesive and the substrate.

(6) "Electrostatic spray" means application where the adhesive and substrate are oppositely charged.

(7) "Flow coating" means conveying the substrate over an enclosed sink where the adhesive is applied at low pressure as the item passes under a series of nozzles.

(8) "HVLP" means a system with specialized nozzles that ~~provide~~provides better air and fluid flow than conventional air atomized spray systems at low air pressure, shape spray pattern, and ~~guide~~guides high volumes of atomized adhesive particles to the substrate using lower air pressure of 10 pounds per square inch or less at the spray cap.

(9) "Miscellaneous industrial adhesives" means adhesives, including adhesive primers used in conjunction with certain types of ~~adhesives~~ adhesives, used at industrial manufacturing and repair facilities for a wide variety of products and equipment that operate adhesives application processes.

(10) "Roll coating," "brush coating," and "hand application" means application of high viscosity adhesives onto small surface ~~area.~~areas.

(b) Control of volatile organic compounds emissions from miscellaneous industrial adhesives product categories covered by 15A NCAC 02D .0923, .0935, .0961, .0962, .0963, .0965, .0966, .0967, and .0968 are exempted from the requirements of this Rule.

(c) This Rule applies to miscellaneous industrial adhesive application sources whose volatile organic compounds emissions meet the threshold established in 15A NCAC 02D .0902(b).

(d) With the exception established in Paragraph (b) of this Rule, all volatile organic compounds containing materials applied by each miscellaneous industrial adhesive application processes before control shall:

(1) not exceed limits established in ~~Table 1~~Tables1, 2, and 3 of this Rule; and

(2) be used in one of the following application methods in conjunction with using low volatile organic compounds adhesives or adhesive primers:

(A) electrostatic spray;

(B) HVLP spray;

(C) flow coat;

(D) roll coat or hand application, including non-spray application methods similar to hand or mechanically powered caulking gun, brush, or direct hand application;

(E) dip coat including electrodes position;

(F) airless spray;

(G) air-assisted airless spray; or

(H) any other adhesive application method capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spraying.

(e) Emission limits established in Subparagraph (d)(1) of this Rule shall be:

(1) met by ~~averaging~~calculating the arithmetic mean of the volatile organic compounds content of materials used on a single application unit for each day; and

(2) calculated as mass of volatile organic compounds per volume of adhesive primer, excluding water and exempt compounds, as applied.

(f) If an adhesive is used to bond dissimilar substrates together in a general adhesive application process as set forth in ~~Table~~ Tables 1, 2, or 3, then the applicable substrate category with the highest volatile organic compounds emission limit shall be established as the limit for such application.

~~Table 1. Volatile Organic Compounds Emission Limits for General and Specialty Adhesive Application Process.~~

~~General Adhesive Application Processes~~	~~VOC Emission Limit (lb/gal)~~
~~Reinforced Plastic Composite~~	~~1.7~~
~~Flexible vinyl~~	~~2.1~~
~~Metal~~	~~0.3~~
~~Porous Material (Except Wood)~~	~~1~~
~~Rubber~~	~~2.1~~
~~Wood~~	~~0.3~~
~~Other Substrates~~	~~2.1~~
~~Specialty Adhesive Application Processes~~	~~VOC Emission Limit (lb/gal)~~
~~Ceramic Tile Installation~~	~~1.1~~
~~Contact Adhesive~~	~~2.1~~
~~Cove Base Installation~~	~~1.3~~
~~Floor Covering Installation (Indoor)~~	~~1.3~~
~~Floor Covering Installation (Outdoor)~~	~~2.1~~
~~Floor Covering Installation (Perimeter Bonded Sheet Vinyl)~~	~~5.5~~
~~Metal to Urethane/Rubber Molding or Casting~~	~~7.1~~

~~Motor Vehicle Adhesive~~	~~2.1~~
~~Motor Vehicle Weatherstrip Adhesive~~	~~6.3~~
~~Multipurpose Construction~~	~~1.7~~
~~Plastic Solvent Welding (ABS)~~	~~3.3~~
~~Plastic Solvent Welding (Except ABS)~~	~~4.2~~
~~Sheet Rubber Lining Installation~~	~~7.1~~
~~Single Ply Roof Membrane Installation/Repair (Except EPDM)~~	~~2.1~~
~~Structural Glazing~~	~~0.8~~
~~Thin Metal Laminating~~	~~6.5~~
~~Tire Repair~~	~~0.8~~
~~Waterproof Resorcinol Glue~~	~~1.4~~
~~Adhesive Primer Application Processes~~	~~VOC Emission Limit1[Limit] (lb/gal)~~
~~Motor Vehicle Glass Bonding Primer~~	~~7.5~~
~~Plastic Solvent Welding Adhesive Primer~~	~~5.4~~
~~Single Ply Roof Membrane Adhesive Primer~~	~~2.1~~
~~Other Adhesive Primer~~	~~2.1~~

Table 1. Volatile Organic Compounds Emission Limits for General Adhesive Application Processes.

General Adhesive Application Processes	VOC Emission Limit (lb/gal)
Reinforced Plastic Composite	1.7
Flexible vinyl	2.1
Metal	0.3
Porous Material (Except Wood)	1
Rubber	2.1
Wood	0.3
Other Substrates	2.1

Table 2. Volatile Organic Compounds Emission Limits for Specialty Adhesive Application Processes.

Specialty Adhesive Application Processes	VOC Emission Limit (lb/gal)
Ceramic Tile Installation	1.1
Contact Adhesive	2.1
Cove Base Installation	1.3
Floor Covering Installation (Indoor)	1.3
Floor Covering Installation (Outdoor)	2.1
Floor Covering Installation (Perimeter Bonded Sheet Vinyl)	5.5

Metal to Urethane/Rubber Molding or Casting	7.1
Motor Vehicle Adhesive	2.1
Motor Vehicle Weatherstrip Adhesive	6.3
Multipurpose Construction	1.7
Plastic Solvent Welding (ABS)	3.3
Plastic Solvent Welding (Except ABS)	4.2
Sheet Rubber Lining Installation	7.1
Single-Ply Roof Membrane Installation/Repair (Except EPDM)	2.1
Structural Glazing	0.8
Thin Metal Laminating	6.5
Tire Repair	0.8
Waterproof Resorcinol Glue	1.4

Table 3. Volatile Organic Compounds Emission Limits for Adhesive Primer Application Processes.

Adhesive Primer Application Processes	VOC Emission Limit (lb/gal)
Motor Vehicle Glass Bonding Primer	7.5
Plastic Solvent Welding Adhesive Primer	5.4
Single-Ply Roof Membrane Adhesive Primer	2.1
Other Adhesive Primer	2.1

(g) Any miscellaneous industrial adhesive application ~~processes~~process subject to this Rule, which chooses to use add-on control for adhesive application processes rather than to comply with the emission limits established in Paragraph (d) of this Rule, shall install control equipment with overall control efficiency of 85 percent or use a combination of adhesives and add-on control equipment on an application process to meet limits established in Paragraph (d) of this Rule.

(h) EPA Method 24 or 25A of Appendix A to 40 CFR Part 60 shall be used to determine the volatile organic compounds content of adhesives, other than reactive adhesives, as defined in 40 CFR 63.3981, and the procedure established in Appendix A of the NESHAP for surface coating of plastic parts (40 CFR Part 63, Subpart PPPP) shall be used to determine the volatile organic compounds content of reactive adhesives unless the facility maintains records to document the volatile organic compounds content of adhesives from the manufacturer.

(i) The owner or operator of any facility subject to this Rule shall comply with ~~the~~ 15A NCAC 02D .0903 and .0958.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. September 1, 2010;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .1403 is amended as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .1403 COMPLIANCE SCHEDULES

(a) Applicability. This Rule applies to sources regulated by 15A NCAC 02D .1402(d), (e), (f), or (g).

(b) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator of a source subject to this Rule because of the applicability of 15A NCAC 02D .1402(d), (e), (f), or (g) shall adhere to the following increments of progress and schedules:

(1) If compliance with this Section is to be achieved through a demonstration to certify compliance without source modification:

(A) The owner or operator shall notify the Director in writing within six months after the Director's notice in the North Carolina Register that the source is in compliance with the applicable limitation or standard;

(B) The owner or operator shall perform any required testing, pursuant to 15A NCAC 02D .1415, within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable limitation; and

(C) The owner or operator shall implement any required recordkeeping and reporting requirements pursuant to 15A NCAC 02D .1404, within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable limitation.

(2) If compliance with this Section is to be achieved through the installation of combustion modification technology or other source modification:

(A) The owner or operator shall submit a permit application pursuant to 15A NCAC 02Q and a compliance schedule within six months after the Director's notice in the North Carolina Register.

(B) The compliance schedule shall contain the following increments of progress:

(i) a date by which contracts for installation of the modification shall be awarded or orders shall be issued for purchase of component parts;

(ii) a date by which installation of the modification shall begin;

(iii) a date by which installation of the modification shall be completed; and

(iv) if the source is subject to a limitation in a permit, a date by which compliance testing shall be completed.

(C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register unless the owner or operator of the source petitions the Director for an alternative limitation pursuant to 15A NCAC 02D .1412. If a petition has been submitted and approved, final compliance shall be achieved within four years after the Director's notice in the North Carolina Register.

(3) If compliance with this Section is to be achieved through the implementation of an emissions averaging plan pursuant to 15A NCAC 02D .1410;

(A) The owner or operator shall abide by the applicable requirements of ~~Subparagraphs (1) or (2) of this Paragraph~~Subparagraphs (b)(1) or (b)(2) of this Rule for certification or modification of each source to be included under the averaging plan.

(B) The owner or operator shall submit a plan to implement an emissions averaging plan pursuant to 15A NCAC 02D .1410 within six months after the Director's notice in the North Carolina Register.

(C) Final compliance shall be achieved within one year after the Director's notice in the North Carolina Register unless implementation of the emissions averaging plan requires the modification of one or more of the averaging sources. If modification of one or more of the averaging sources is required, final compliance shall be achieved within three years.

(4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel switching program pursuant to 15A NCAC 02D .1411:

(A) The owner or operator shall make all necessary modifications according to ~~Subparagraph (2) of this Paragraph.~~Subparagraph (b)(2) of this Rule.

(B) The owner or operator shall include a plan for complying with the requirements of 15A NCAC 02D .1411 with the permit application required ~~under Part (2)(A) of this Subparagraph.~~in~~[Subparagraph (b)(2)]~~ Part (b)(2)(A) of this Rule.

(C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register.

(5) Increments of progress certification. The owner or operator shall certify to the Director, within five days after each increment deadline of progress in this Paragraph, whether the required increment of progress has been met.

(c) Nonattainment areas. The owner or operator of a source subject to this Rule because of the applicability of 15A NCAC 02D .1402(d), shall adhere to the following:

(1) If compliance with this Section is to be achieved through a demonstration to certify compliance without source modification:

(A) The owner or operator shall notify the Director in writing by August 1, 2007;

(B) The owner or operator shall perform any required testing, according to 15A NCAC 02D .1415, by January 1, 2008; and

(C) The owner or operator shall implement any required recordkeeping and reporting requirements, according to 15A NCAC 02D .1404, by January 1, 2008.

(2) If compliance with this Section is to be achieved through the installation of combustion modification technology or other source modification:

(A) The owner or operator shall submit a permit application and a compliance schedule by August 1, 2007.

(B) The compliance schedule shall contain a date by which contracts for installation of the modification shall be awarded or orders shall be issued for purchase of component parts.

(C) The compliance schedule shall contain a date by which installation of the modification shall begin.

(D) The compliance schedule shall contain a date by which installation of the modification shall be completed.

(E) If the source is subject to a limitation, the compliance schedule shall contain, a date by which compliance testing shall be completed.

(F) Final compliance shall be achieved no later than April 1, 2009.

(3) If compliance with this Section is to be achieved through the implementation of an emissions averaging plan as provided for in 15A NCAC 02D .1410:

(A) The owner or operator shall abide by the applicable requirements of ~~Subparagraph (1) or (2) of this Paragraph~~Subparagraphs (c)(1) or (c)(2) of this Rule for certification or modification of each source to be included under the averaging plan.

(B) The owner or operator shall submit a plan to implement an emissions averaging plan according to 15A NCAC 02D .1410 by August 1, 2007.

(C) Final compliance shall be achieved within one year no later than January 1, 2008.

(4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel switching program as provided for in 15A NCAC 02D .1411:

(A) The owner or operator shall make all necessary modifications according to ~~Subparagraph (2) of this Paragraph.~~Subparagraph (c)(2) of this Rule.

(B) The owner or operator shall include a plan for complying with the requirements of 15A NCAC 02D .1411 with the permit application required ~~under Part (2)(A) of this Subparagraph.~~in~~[Subparagraph (c)(2)]~~ Part (c)(2)(A) of this Rule.

(C) Final compliance shall be achieved no later than April 1, 2009.

(5) Increments of progress certification. The owner or operator shall certify to the Director, within five days after the deadline for each increment of progress in this Paragraph, whether the required increment of progress has been met.

(d) Sources already in compliance.

(1) Maintenance area and Charlotte ozone nonattainment area contingency plan. Paragraph (b) of this Rule shall not apply to sources ~~that~~that:

(A) are in compliance with the applicable rules of this Section when the Director notices in the North Carolina Register the implementation of rules ~~in the North Carolina Register~~ that resolves a violation of the ambient air quality standard for ~~ozone~~ozone; and

(B) ~~that has~~have determined and certified compliance to the Director within six months after the Director notices in the North Carolina Register the implementation of rules ~~in the North Carolina Register~~ that resolves a violation of the ambient air quality standard for ozone.

(2) Nonattainment areas. Paragraph (c) of this Rule shall not apply to sources in an area named in 15A NCAC 02D .1402(d) that are in compliance with applicable rules of this Section on March 1, 2007.

(e) New sources.

(1) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator of any new source of nitrogen oxides not permitted before the date the Director notices in the North Carolina Register according to 15A NCAC 02D .1402(e), (f), or (g) shall comply with all applicable rules in this Section upon start-up of the source. The owner or operator of any new source covered by 15A NCAC 02D .1407, .1408, .1409, .1413, or .1418 shall comply with all applicable rules in this Section upon start-up of the source.

(2) Nonattainment areas. The owner or operator of any new source of nitrogen oxides not permitted before March 1, 2007 in an area identified in 15A NCAC 02D .1402(d) shall comply with all applicable rules in this Section upon start-up of the source.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.65; 143.215.107(a)(5); 143.215.107(a)(7); 143.215.107(a)(10);*
Eff. April 1, 1995;
Amended Eff. April 1, 1997;
Temporary Amendment Eff. November 1, 2000;
Amended Eff. April 1, 2001;
Temporary Amendment Eff. August 1, 2001;
Amended Eff. July 1, 2007; March 1, 2007; July 18, 2002;
Readopted Eff. October 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .1708 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .1708 REPORTING REQUIREMENTS

(a) The owner or operator of an existing MSW landfill subject to this Rule according to 15A NCAC 02D .1702 shall submit a design capacity report to the Director as follows:

(1) The initial design capacity report shall be submitted no later than 90 days after the effective date of the EPA approval of the State Plan pursuant to Section 111(d) of the Clean Air Act.

(2) The initial design capacity report shall contain the information given in 40 CFR 60.38f(a)(1) and 40 CFR 60.38f(a)(2).

(b) The owner or operator of an existing MSW landfill subject to this Section shall submit an amended design capacity report providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. An increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in 15A NCAC 02D .1709(j).

(c) The owner or operator of an existing MSW landfill subject to this Rule shall submit a NMOC emission rate report to the Director no later than 90 days after the effective date of EPA approval of the State plan pursuant to Section 111(d) of the Clean Air Act and annually thereafter, except as provided for in 40 CFR 60.38f(c). The NMOC emission rate report shall:

(1) contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.35f(a) or (b), as applicable;

(2) include all the data, calculations, sample reports, and measurements used to estimate the annual or five-year emissions; and

(3) if the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimate waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. All data and calculations shall be provided. This estimate shall be revised at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate shall be submitted. The revised estimate shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

Each owner and operator subject to the requirements of this Rule shall be exempted from the requirements to submit an NMOC emission rate report, after installing a compliant collection and control system, during such time as the collection and control system is in operation and in compliance with 15A NCAC 02D .1705 and .1706.

(d) The owner or operator of an existing MSW landfill subject to 15A NCAC 02D .1703(b) shall submit a collection and control system design plan to the Director within one year of the first NMOC emission rate report, required under

Paragraph (c) of this Rule, in which the emission rate equals or exceeds 34 megagrams per year, except as provided for in 40 CFR 60.38f(d)(4)(i), 60.38f(d)(4)(ii), and 60.38f(d)(4)(iii). The collection and control system design plan shall include:

(1) a description of the collection and control system;

(2) a description of any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions provided in this Rule; and

(3) a description indicating how the plan conforms to specifications for active collection systems or a demonstration of sufficient alternative provisions as given in 40 CFR 60.40f.

(e) The owner or operator of an existing MSW landfill who ~~has already~~ previously submitted a design plan pursuant to Paragraph (d)~~-~~ of this Rule, pursuant to 40 CFR Part 60, Subpart WWW, or a State plan implementing 40 CFR Part 60, Subpart Cc, shall submit a revised design plan that includes the information in Subparagraphs (d)(1) through ~~(d)(3).~~(d)(3) of this ~~[Rule.]~~Rule ~~The revised design plan shall be submitted to the Director~~ as follows:

(1) at least 90 days before expanding operations to an area ~~no~~ not covered by the previously approved design plan; and

(2) prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director in Paragraph (d) of this Rule.

(f) The owner or operator of a controlled MSW landfill shall submit a closure report meeting the requirements of 40 CFR 258.60 to the Director within 30 days of cessation of waste acceptance. If a closure report has been submitted to the Director, no additional waste shall be placed into the landfill without first filing a notification of modification as described pursuant to 40 CFR 60.7(a)(4). The Director may request such additional information to verify that permanent closure of the MSW landfill has taken place pursuant to the requirements of 40 CFR 258.60.

(g) The owner or operator of a controlled MSW landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment according to 15A NCAC 02D .1703(f). The report shall contain the items listed in 40 CFR 60.38f(g). The Director may request such additional information to verify that all the conditions for removal in 40 CFR 60.33f(f) have been met.

(h) The owner or operator of a MSW landfill seeking to comply with 15A NCAC 02D .1703(b) using an active collection system designed in accordance with 40 CFR 60.33f(b) shall submit, following the procedures pursuant to 40 CFR 60.38f(j)(2), annual reports of the recorded information in 40 CFR 60.38f(h)(1) through (h)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. The initial performance test report shall be submitted by following the procedures pursuant to 40 CFR 60.38f(j)(1). Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707~~ the owner or operator~~ shall follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of this Paragraph.

(i) The owner or operator of an existing MSW landfill required to comply with 15A NCAC 02D .1703(b) shall include the information given in 40 CFR 60.38f(i)(1) through (i)(6) with the initial performance test report required pursuant to 40 CFR 60.8.

(j) The owner or operator of an existing MSW landfill shall submit a report within 60 days after the date of completing each performance test pursuant to 40 CFR 60.38f(j).

(k) The owner or operator of an existing MSW landfill required to implement corrective ~~active,~~action, shall submit reports to the Director pursuant to 40 CFR 60.38f(k)(1) and (k)(2). Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707 shall follow the corrective action and the corresponding timeline reporting requirements in 40 CFR 63.1981(j) in lieu of this Paragraph.

(l) The owner or operator of an affected MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit within the last 10 years shall submit an annual report to the Director that includes the information pursuant to 40 CFR 60.38f(l)(1) through (l)(10). The annual report shall be submitted by following the procedures pursuant to 40 CFR 60.38f(j)(2).

(m) The owner or operator of an affected MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on Tier 4 provisions of 40 CFR 60.35f(a)(6), shall provide notifications to the Director in accordance with 40 CFR 60.38f(m)(1) and (m)(2).

(n) Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707, shall submit the 24-hour high temperature report according to 40 CFR 63.1981(k).

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);*
Eff. July 1, 1998;
Amended Eff. July 1, 2000;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, ~~2021.~~2021;
Amended Eff. November 1, 2023.

15A NCAC 02Q .0102 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02Q .0102 ACTIVITIES EXEMPTED FROM PERMIT REQUIREMENTS

(a) For the purposes of this Rule, the definitions listed in 15A NCAC 02D .0101 and 15A NCAC 02Q .0103 shall apply.

(b) This Rule shall not apply to:

(1) facilities whose potential emissions require a permit pursuant to 15A NCAC 02Q .0500 (Title V Procedures); or

(2) a source emitting a pollutant that is part of the facility's 15A NCAC 02D .1100 (Control of Toxic Air Pollutants) modeling demonstration if that source is not exempted pursuant to 15A NCAC 02Q .0702.

(c) The owner or operator of an activity exempt from permitting pursuant to this Rule shall not be exempt from demonstrating compliance with any other applicable State or federal requirement.

(d) Any facility whose actual emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants, and toxic air pollutants are each less than five tons per year and whose actual total aggregate emissions are less than 10 tons per year shall not be required to obtain a permit pursuant to 15A NCAC 02Q .0300. This Paragraph shall not apply to synthetic minor facilities that are regulated pursuant to 15A NCAC 02Q .0315.

(e) Any facility that is not exempted from permitting pursuant to Paragraph (d) of this Rule and whose actual total aggregate emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants, and toxic air pollutants are greater than or equal to five tons per year and less than 25 tons per year may register their facility pursuant to 15A NCAC 02D .0202 instead of obtaining a permit pursuant to 15A NCAC 02Q .0300. This Paragraph shall not apply to:

(1) synthetic minor facilities that are regulated pursuant to 15A NCAC 02Q .0315;

(2) facilities with a source subject to maximum achievable control technology pursuant to 40 CFR Part 63;

(3) facilities with sources of volatile organic compounds or nitrogen oxides that are located in a nonattainment area; or

(4) facilities with a source regulated pursuant to New Source Performance Standards (NSPS), unless the source is exempted pursuant to Paragraph (g) or (h) of this Rule.

(f) The Director may require the owner or operator of a facility to register such facility pursuant to 15A NCAC 02D .0200 or obtain a permit pursuant to 15A NCAC 02Q .0300, if necessary to obtain compliance with any other applicable State or federal requirement.

(g) The following activities shall not require a permit or permit modification pursuant to 15A NCAC 02Q .0300:

(1) maintenance, upkeep, and replacement:

(A) maintenance, structural changes, or repair activities that do not increase the capacity of such process and do not cause any change in the quality or nature or an increase in quantity of an emission of any regulated air pollutant;

(B) housekeeping activities or building maintenance procedures, including painting buildings, paving parking lots, resurfacing floors, repairing roofs, washing, using portable vacuum cleaners, sweeping, using and associated storing of janitorial products, or removing insulation;

(C) using office supplies, supplies to maintain copying equipment, or blueprint machines;

(D) using firefighting equipment (excluding engines regulated pursuant to 40 CFR 63, Subpart ZZZZ); or

(E) replacing existing equipment with equipment of the same size (or smaller), type, and function that does not result in an increase to the actual or potential emission of regulated air pollutants, does not affect the facility's compliance with any other applicable State or federal requirements, and that fits the description of the existing equipment in the permit, including the application, such that the replacement equipment can be lawfully operated pursuant to that permit without modifying the permit;

(2) air conditioning or ventilation: comfort air conditioning or comfort ventilating systems that do not transport, remove, or exhaust regulated air pollutants to the atmosphere;

(3) laboratory or classroom activities:

(A) bench-scale, on-site equipment used for experimentation, chemical or physical analysis for quality control purposes or for diagnosis of illness, training, or instructional purposes;

(B) research and development activities that produce no commercial product or feedstock material; or

(C) educational activities, including wood working, welding, and automotive repair;

(4) storage tanks with no applicable requirements other than Stage I controls pursuant to 15A NCAC 02D .0928, Gasoline Service Stations Stage I;

(5) combustion and heat transfer equipment:

(A) heating units used for human comfort, excluding space heaters burning used oil, that have a heat input of less than 10 million Btu per hour and that do not provide heat for any manufacturing or other industrial process;

(B) residential wood stoves, heaters, or fireplaces; or

(C) water heaters that are used for domestic purposes only and are not used to heat process water;

(6) wastewater treatment processes: industrial wastewater treatment processes or municipal wastewater treatment processes for which there are no ~~state~~State or federal air requirements;

(7) dispensing equipment: equipment used solely to dispense gasoline, diesel fuel, kerosene, lubricants, or cooling oils;

(8) electric motor burn-out ovens with secondary combustion chambers or afterburners;

(9) electric motor bake-on ovens;

(10) burn-off ovens with afterburners for paint-line hangers;

(11) hosiery knitting machines and associated lint screens, hosiery dryers and associated lint screens, and hosiery dyeing processes that do not use bleach or solvent dyes;

(12) woodworking operations processing only green wood;

(13) solid waste landfills: This exemption does not apply to flares and other sources of combustion at solid waste landfills. These flares and other combustion sources shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless they qualify for another exemption pursuant to this Paragraph; or

(14) miscellaneous:

(A) equipment that does not emit any regulated air pollutants;

(B) sources for which there are no applicable requirements;

(C) motor vehicles, aircraft, marine vessels, locomotives, tractors, or other self-propelled vehicles with internal combustion engines;

(D) engines regulated pursuant to Title II of the Federal Clean Air Act (Emission Standards for Moving Sources);

(E) equipment used for preparing food for direct on-site human consumption;

(F) a source whose emissions are regulated only pursuant to Section 112(r) or Title VI of the Federal Clean Air Act;

(G) exit gases from in-line process analyzers;

(H) stacks and vents that prevent the escape of sewer gases from domestic waste through plumbing traps;

(I) refrigeration equipment that complies with the regulations set forth in Sections 601 through 618 of Title VI (Stratospheric Ozone Protection) of the Federal Clean Air Act, 40 CFR Part 82, and any other regulations promulgated by EPA pursuant to Title VI for stratospheric ozone protection, except refrigeration equipment used as or in conjunction with air pollution control equipment. Refrigeration equipment used as or in conjunction with air pollution control equipment shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless it qualifies for another exemption pursuant to this Paragraph;

(J) equipment not vented to the outdoor atmosphere, with the exception of equipment that emits volatile organic compounds. Equipment that emits volatile organic compounds shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless it qualifies for another exemption pursuant to this Paragraph;

(K) animal operations not required to have control technology pursuant to 15A NCAC 02D .1800. If an animal operation is required to have control technology, it shall obtain a permit pursuant to this Subchapter;

(L) any incinerator that meets the requirements set forth in 15A NCAC 02D .1201(c)(4); or

(M) dry cleaning operations, regardless of NSPS or NESHAP applicability.

(h) The following activities shall not require a permit or permit modification pursuant to 15A NCAC 02Q .0300. These activities shall be included in determining applicability of any rule or standard that requires facility-wide aggregation of source emissions, including activities regulated by 15A NCAC 02D .0530, 15A NCAC 02D .0531, 15A NCAC 02Q .0500, and 15A NCAC 02Q .0700:

(1) combustion and heat transfer equipment (including direct-fired equipment that only emit regulated pollutants from fuel combustion):

(A) fuel combustion equipment (excluding internal combustion engines) not regulated pursuant to 40 CFR Part 60, NSPS, firing exclusively unadulterated liquid fossil fuel, wood, or an approved equivalent unadulterated fuel as defined in 15A NCAC 02Q .0103;

(B) fuel combustion equipment (excluding internal combustion engines) firing exclusively natural gas or liquefied petroleum gas or a mixture of these fuels; or

(C) space heaters burning waste oil if:

(i) the heater burns only oil that the owner or operator generates or used oil from do-it-yourself oil changers who generate used oil as household wastes; and

(ii) the heater is designed to have a maximum heat input of not more than 500,000 Btu per hour;

(2) gasoline distribution: bulk gasoline plants, as defined in 15A NCAC 02D .0926(a)(3), with an average daily throughput of less than 4,000 gallons;

(3) paint spray booths or graphic arts operations, coating operations, and solvent cleaning operations, as defined in 15A NCAC 02Q .0803, located at a facility whose facility-wide actual uncontrolled emissions of volatile organic compounds are less than five tons per year, except that such emission sources whose actual uncontrolled emissions of volatile organic compounds are less than 100 pounds per year shall qualify for this exemption regardless of the facility-wide emissions. For the purpose of this exemption, water wash and filters that are an integral part of the paint spray booth shall not be considered air pollution control devices;

(4) electrostatic dry powder coating operations with filters or powder recovery systems;

(5) miscellaneous: any source whose potential uncontrolled emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, and carbon monoxide shall each be no more than five tons per year; or

(6) case-by-case exemption: activities that the applicant demonstrates to the Director do not violate any applicable emission control standard.

(i) ~~The~~ Upon request of the Director, the owner or operator of a facility or source claiming that an activity is exempt ~~pursuant to~~ under Paragraphs (d), (e), (g) or (h) of this Rule shall submit emissions data, documentation of equipment type, or other supporting documents ~~to the Director upon request that~~ demonstrating the facility or source is qualified for that exemption.

History Note: *Authority G.S. ~~143-215.3(a)(1);~~ 143-215.3(a)(1), (4), (5); 143-215.106; 143-215.107(a)(4); 143-215.107D; 143-215.108;*
Temporary Adoption Eff. March 8, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Eff. July 1, 1994;
Amended Eff. April 1, 1999; July 1, 1998; July 1, 1997; November 1, 1996;
Temporary Amendment Eff. December 1, 1999;
Amended Eff. June 13, 2016; May 1, 2013; January 1, 2009; July 1, 2007; June 29, 2006; July 18, 2002; July 1, 2000;
Readopted Eff. April 1, ~~2018.~~2018;
Amended Eff. November 1, 2023.

Burgos, Alexander N

Subject: FW: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

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From: Liebman, Brian R <brian.liebman@oah.nc.gov>
Sent: Friday, October 13, 2023 2:04 PM
To: Everett, Jennifer <jennifer.everett@deq.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Good morning all,

I've reviewed EMC's responses, and I have follow ups for some rules. Please see below. I've copied the request and the response, and my follow up is in red. Please respond/revise the rules **as soon as possible, and no later than 12 PM on Tuesday, October 17**.

.0532
In (e)(3)(B)(i), line 20, what is a "sufficient" air quality offset?
Sufficient means that there is an improvement in the locality where the national ambient air quality standard is not met, as stated in the first sentence of Part (e)(3)(B).
My question is whether *any* improvement is "sufficient" or if there's a certain threshold that must be met to be considered "sufficient".

.0614
In (a), line 5, is "emissions unit" defined anywhere?
This industry term is well known among stakeholders and engineering professionals within the field of air quality. The EPA defines "emissions unit" as any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Subsection 112(b) of the Clean Air Act.

This can be found under the Vocabulary Catalog found here:
https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Air%20Permitting%20Terms
If the term is defined by the EPA, why not incorporate the definition by reference here?

.0918
In (c)(3), lines 31-32, "three piece applicator" is not defined in (a). Is there a reason for the omission?

This refers to an applicator with three pieces, which is often used in three-piece side seam coating operations. This rule is based off EPA's Control Technique Guidelines (CTG) for implementing reasonably available control technology (RACT) from this source category:
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000UNN9.txt

Below is an industry example which can include all types of cans like paint cans, vegetable cans, and soda cans.

https://www.nordson.com/en/divisions/industrial-coating-systems/application-solutions/container-coating
Unfortunately, this doesn't answer my question. Why are other kinds of applicators defined in (a), and this one is not?

.0926

In (c), p.2, lines 3-4 is it accurate to say that the receiving stationary storage tank should be equipped for "bottom filling" as the term is used in (a)?

Yes, this is accurate. The language of (c), p.2, lines 3-4 aligns with that in the definition of "bottom filling" in Paragraph (a).

Additionally, line 1 has been revised to read with better clarity and to indicate a singular storage tank.

Thanks for the changes. However, why not just use the term "bottom filling" that you took the care to define in (a)? I think it's potentially confusing to define the term, but then not use it here.

In (h)(1), line 31, please define "good working order"?

This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of bulk gasoline plant, including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs for the control of VOC emissions, with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term of art among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule:
https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF

Similarly for Tennessee (page 46-9):
https://www.epa.gov/system/files/documents/2022-09/Knox%20Section%2046.pdf

I understand that the term is common, but a term of art, by its definition, has a known and articulable meaning. I believe I've seen a definition in other areas of the NCAC, so it shouldn't be difficult to reproduce here.

In (h)(3), line 34, is there a definition for "vapor tight"? I've seen this phrase across the Section .0900 rules submitted for review, and I think it's obvious what it means, but given the technical nature of these rules, I wondered if there was an explicit definition.

Broadly, "vapor tight" means the unit and its fittings are not measurably releasing vapor to the atmosphere. The EPA defines "vapor tight" for a cargo tank in 40 CFR 63.421 as "*a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.425(e), and which is subject at all times to the test requirements in §63.425(f), (g), and (h).*" The annual certification test in §63.425(e) requires a leak detection test using EPA Test Method 21 and a pressure test of the cargo tank's internal vapor valve. The leak detection test requires that "*a vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.*" The test requirements in §63.425(f), (g), and (h) are a leak detection test using EPA Test Method 21, a nitrogen pressure decay field test, and a continuous performance pressure decay test.

If the term is defined in the CFR, perhaps a cross-reference here would be useful.

.0927

In (a)(9)(A) and (B), lines 35 and 36, is there a definition for "hazardous liquid"?

This definition of pipeline breakout station reflects that for "breakout tank" in 49 CFR 195.2, which also defines "hazardous liquid" as "petroleum, petroleum products, anhydrous ammonia, and ethanol or other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities." The scope of hazardous liquid to which this rule applies is narrowed by the incorporation of pipeline breakout station into the definition of "bulk gasoline terminal" in (a)(1)(A) as specific to "an interstate oil pipeline facility."

So, if the term "hazardous liquid" means something less than the definition in the CFR, I think it definitely needs to be defined here. Please include language here stating what a "hazardous liquid" is in this context.

In (i)(2), line 32, what is a "cluster"?
In this context, the cluster includes the sources of benzene emissions (including the pipeline and marketing terminals served by the pipeline) around the terminal (that existed before December 1, 1992 and is increasing benzene emissions).
How is the regulated public to know this? Please include a definition of "cluster" here.

In (n), line 17, does 02D .0903 actually require visual inspection? That rule says only that the owner or operator shall install, operate, and maintain monitoring instruments "or procedures as necessary to comply with the requirements of this Section". Even if a visual inspection requirement is somewhere else in Section .0900, it surely is not in Rule .0903. Please revise.
The requirement for visual inspections is in 02D .0927(n). The reference to 02D .1903 is intended to encompass the general recordkeeping, reporting, and monitoring requirements that apply to any volatile organic compound (VOC) emission source, such as maintaining "written data and reports relating to…procedures that document the compliance status of the volatile organic compound emission source." The language of 02D .0927(n) has been revised for clarity.
Thank you for making changes, but unfortunately, I don't think the revision here makes a substantive difference. The way this language reads, it seems like .0903 requires the visual inspection. From your response, it sounds like you're saying that you want documentation of the visual inspection, which is fine, but I don't get that from this language. Please revise for clarity.

In (p)(5), line 4, "compliance" with what? Paragraph (p)? If so, what other information must be included in the report, other than what you have required here?
Compliance with this Rule. This is a specification for a facility to provide other means such as a third-party test report of the equipment being leak-tight.
Please say this in the Rule then.

<u>.0928</u>
In (a)(10), line 25 and in (a)(14), p.2, line 1, what "facility" are you referring to? A gasoline dispensing facility? Or something else?
The regulated community understands this general term refers to any facility that is subject to this Rule 02D .0928 pursuant to Paragraph (b). This includes gasoline dispensing facilities and gasoline service stations.
If "facility" means "gasoline dispensing facility" then please just use the defined term here and anywhere else in the Rule that would be appropriate.

In (c)(1), line 7, what is the equivalent to a floating roof?
This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities. The technology for gasoline storage is ever advancing and this phrasing allows for flexibility for a floating roof equivalent in prevent emissions. For example, the difference between internal and external floating roof technology. Below are some resources to help visualize why this language is helpful to stakeholders in application of the rule. When viewing tanks at a service station from the outside, the tank may appear to have a fixed roof, but an internal floating roof may rest on the liquid inside the tank, providing the same (or better) control of gasoline vapors as an external floating roof.
http://www.largestoragetank.com/news/comparisons-between-internal-floating-roof-storage-tank-and-external-floating-storage-tank.html
https://www.youtube.com/watch?v=DNRpLiXecC4
This is an interesting explanation, but it doesn't help your regulated public understand what would and would not be considered "equivalent" to a floating roof. With respect to the examples you've provided, wouldn't both an internal and external floating roof structure be considered a "floating roof"?

In (d)(2), line 24, define "good working order".

This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of gasoline storage including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs the control of VOC emissions with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule:
https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF

In (d)(3), line 26, please define or delete "properly".
Please refer to the response above for "good working order" it is the same situation with language used across many states. It is not enough for a device to simply be working, which could mean that it is simply operating (but possibly not well). The unit needs to be well-maintained in accordance with the manufacturer's recommendations and specifications and good engineering practices.

In (d)(4), line 28, define "proper working order". Consider deleting "proper".
Please refer to the response above for "good working order" and "properly". It is the same situation with language used across many states.
For all three of these, please see my reply on "good working order" from Rule .0926. Also, it occurs to me that "good working order" and "proper working order" are separate terms and would likely have separate meanings. What is the difference between them?

In (e)(2), p.3, line 2, what is an "equivalent" to a refrigeration-condensation system?
This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities and would be a system that provides for the same or better control as that specified for refrigeration-condensation systems (90% by weight recovery of VOCs in the displaced vapor).
Why not define "equivalent" in the Rule as you have here? With the parenthetical included in the body of the text, of course. 😊

.0932
In (a)(8), line 27, the term "motor vehicle" is used without definition. I see you added that definition in Rule .0927, but it is limited in application to that Rule and doesn't apply here.
The definition in .0927 was requested by external stakeholders as it was a common and repeated question received each inspection cycle. The definition was added to .0927 to provide consistency and clarity for the regulated community. For the cargo tank owners and operators, there was not the same question or confusion.
I understand, but as "motor vehicle" has a statutory definition, which you've changed in .0927, you're now creating a situation where the term has different meanings in different contexts, i.e. ambiguity. If you're applying the definition in .0927 here, then say so. If it's the statutory definition, then say so. But leaving it undefined here is ambiguous.

In (d)(2)(A), p.3, line 7, what is a "potential leak source"?
A leak source for a storage tank of any kind includes the designed openings of the container, but may also include valves, connectors, pumps, pressure relief devices, open-ended lines, and past repairs which are weak points of the container. These are easily identifiable and known among the users of vapor collection systems as it is required as part of their training to receive certification to handle hazardous materials (gasoline) as part of their training. Collecting the vapors from gasoline not only protects ambient air quality, but also prevents explosions so there are overlapping interests in limiting gasoline emissions.
I understand this could be difficult to define, but you're asking your regulated public to identify and take readings from these areas. Thus, I think you need to say what they are. A general definition and a list of examples, as you've given here, would go a long way towards addressing this.

In (d)(4), lines 20-22, where is the Director's authority to relax the monitoring requirements for some plants/terminals, and to increase the frequency of monitoring for others? The two statutes in your History Note explicitly give the "Commission" or the "Department" the authority to develop and implement rules.
The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. N.C.G.S. § 143-215.107 gives the Commission authority to "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" and gives the Department authority to implement those standards. N.C.G.S. § 143-215.66 further authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources. Here those requirements authorize sources to implement alternative testing procedures if approved by the Director under circumstances described in the rule.

This rule is an approved variation of monitoring requirements incorporated into the North Carolina SIP. This language provides for a custom approach to focusing staff resources where it is most beneficial for protecting air quality. In practice, this rule rewards facilities upkeeping their facility and preventing emissions. In the EPA's Leak Detection and Repair Best Practices Guide, they state: Many regulations allow for less frequent monitoring (i.e. skip periods) when good performance (as defined in the applicable regulation) is demonstrated. Skip period is an alternative work practice found in some equipment leak regulations and usually applies only to valves and connectors. After a specified number of leak detection periods (e.g., monthly) during which the percentage of leaking components is below a certain value (e.g., 2% for NSPS facilities), a facility can monitor less frequently (e.g., quarterly) as long as the percentage of leaking components remains low. The facility must keep a record of the percentage of the component type found leaking during each leak detection period.
Please add any statutes that give the Director this authority to the History Note.

.0961
In (c), p.2, line 13 and in (d), line 21, what is an "equivalent level of control"?
An "equivalent level of control" means a control strategy that achieves the same emission reductions as the requirements, determined on a case-by-case basis. The facility may provide another approach that achieves comparable emission reductions, and conditions for that approach are added to the facility's permit, as referenced in the rule language of (c) and (d).
Why not say this in the Rule then?

In (f)(1), is anything after "threshold" an actual requirement? This appears to be a suggestion.
The first part of the Subparagraph ("use an enforceable limitation…which can be achieved,") is specifying the requirement to keep emissions below 25 tons per year (tpy), and then introduces two options: 1) "using inks and coatings that contain less than 31.25 tons per year volatile organic compound (petroleum ink oil) where a 20% retention factor of petroleum ink oil applies;" or 2) "by using other methods established by permit conditions." The first option is the method already vetted and recommended by EPA in their Control Technology Guidelines (CTG) to meet the requirement of keeping emissions below 25 tpy (see page 14 of the EPA document linked below), and the second option allows for case-by-case determination of how emissions will be kept below 25 tpy, so long as permit conditions (i.e., enforceable limitations) are added to the facility's permit.

EPA Control Technique Guidelines (CTG) for Lithographic Letterpress Printing:
https://www3.epa.gov/airquality/ctg_act/200609_voc_epa453_r-06-002_litho_letterpress_printing.pdf
If the options here are the only two options, should it say "shall be achieved" instead of "can be achieved"?

In (h)(1) and (2), the Rule cites to 15 NCAC 02D .2602(h) for approval of alternative testing methods. Looking at that rule, deviations from testing procedures may be allowed by the Director under certain circumstances. Where is the Director's statutory authority to alter testing procedures prescribed by the CFR?

N.C.G.S. § 143-215.66 authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources, while N.C.G.S. § 143-215.3(a)(4) authorizes the Commission to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. Here those requirements allow sources to implement alternative testing procedures approved by the Director. There is no federal rule requiring use of Method 24 for determining VOC content from these lithographic letterpress printing operations, or Methods 18, 25, or 25A for measuring VOC at control device inlets and outlets for the purposes of determining control efficiency. As explained in the response to the first comment for Rule 02D .0927, this is a VOC RACT Rule that is based on the EPA's CTG (as required by the CAA), which contains recommendations for various methods of measurement, depending on the application. There may be instances where the specified methods are infeasible or not appropriate for a particular application and the applicant may demonstrate that an alternate method is equivalent or more appropriate pursuant to 15A NCAC 02D .2602. This Rule is EPA-approved into North Carolina's SIP for control of VOC emissions.
Please add citations to 215.66 and 215.3(a)(4) to the History Note.

In (i), line 36, what is a "typical" operating condition?
All tests are performed during "typical" or normal operating conditions. This means that the same day-to-day production prior to the test is used during the test, to ensure that the results of the test are representative of routine operations. For example, typical operating conditions would not include times when maintenance is performed, when the emission source is starting up, control devices are not operating, or the facility is operating at a process rate lower than usual.
Why not say this (or something similar) in the Rule then?

.0964
In (a)(8), I am not sure the definition for "HVLP" is grammatical. Please revise.
Added an "s" to "provide" to account for "system" being a third person singular noun. HVLP stands for "high-volume low-pressure".
I think "guide" needs to be plural, as well.

In (a)(9), what exactly does the definition for "Miscellaneous industrial adhesives" mean? I'm oversimplifying, but boiled down it just means adhesives used in a variety of industrial settings. I'm not sure this is actually a definition, as it doesn't seem to set one kind of industrial adhesive aside from another. It seems like the term is better defined by the combination of (b) and (c) – adhesives that aren't covered by other 02D rules but which have VOC emissions greater that the threshold in .0902.
A punctuation correction was made to add clarity to this definition and align it with that in EPA's CTG. This definition was looked at and revised recently in 2020 and it was decided that it improved clarity for stakeholders.
I understand that the definition was revised, but I don't see that it actually does the work of being a definition. It does not include some things and exclude others. Looking at the language, I can't tell what would and would not be a miscellaneous industrial adhesive. Is there a way to make this definition more specific?

In (d)(2), line 35, what is a "low" VOC adhesive? Is this term defined?
"Low" VOC means an adhesive containing no VOC or having a low VOC partial pressure, which can result from a low concentration of VOCs in solution/mixture or containing VOCs with a low vapor pressure. The exact content of the adhesive will vary based on the application. From the EPA's CTG upon which this rule is based:

"Lower VOC content adhesives, higher solids adhesives and waterborne adhesives, may be used to reduce VOC emissions by reducing or eliminating the organic solvent present in the adhesive." (p. 9)

"One pollution prevention measure is to substitute higher-solvent adhesives with adhesives containing little or no solvents. As previously discussed, these adhesives include waterborne adhesives, higher solids adhesives, and reactive adhesives. Manufacturers have developed and are continuing to develop waterborne

and reactive formulations that replace conventional organic solvent-borne adhesives. These adhesives are generally available. Conversion to waterborne adhesives (for example) can lower VOC emissions greatly, and many miscellaneous industrial adhesive application processes are capable of converting to these adhesives. However, the currently available low-VOC adhesives or adhesives with no solvents do not meet the performance requirements of some industrial manufacturing applications and therefore are not viable options for these operations." (p. 10)

https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001JFP.txt

Also related to the above text is the definition of "low solvent coating" in 15A NCAC 02D .0901(2), which means: "*means a coating that contains a substantially lower amount of volatile organic compounds than conventional organic solvent borne coatings; it typically falls into one of three major groups of high solids, waterborne, or powder coatings.*"
Is there a reason that the definition you've given in the 1st paragraph of your response can't be added to the Rule? Otherwise can you incorporate the CTG by reference?

In (e)(1), p.2, line 11, what does "averaging" mean? Arithmetic mean? Mode? Median?
Averaging refers to the arithmetic mean. Using a mode or median of data would not be an average, but rather one data point from the set. This would exclude much of the data and allow for the omission of important data points.
I've asked about this other places, and your responses indicate that averaging means the arithmetic mean and that there is a process, defined by the CFR, to make that calculation. Here, there doesn't seem to be an outside process that confirms it is arithmetic mean. Since mode or median would, as you've pointed out, exclude data points, I think it's important to specify arithmetic mean here.

In (h), line 8, what is a reactive adhesive?
According to both 40 CFR § 63.3981 and § 63.4591, "Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process." The regulated community understands this term.
Are the two CFR provisions referenced here incorporated anywhere by reference in your Rules?

.1403
In (b)(2), line 22, what kind of permit application does the Rule refer to? There appear to be several different types of permits contemplated by the Clean Air Act, the CFR, and Article 21B of Chapter 143.
This would be either be a synthetic minor (02Q .0300) or Title V (02Q .0500) permit if potential NOx emissions are greater than 100 tons per year or may require a new source review (NSR) permit if source is in an area of nonattainment for ozone or exceeds 560 pounds per year during the ozone season. The rules to determine which type of permit application is needed are contained in 15A NCAC 02Q.
Why not reference these in the Rule directly, for the sake of clarity?

In (b)(2)(B)(iv), line 29, what is a "limitation"?
A limitation could be an emission limit, a fuel usage limit, or an operational limit. It depends on what the facility agrees to do in the permit.
If the limitation is always in a permit, then why not change this to "permit limitation".

.1708
In (f), what is a "closure report"? Is this detailed in another rule?
The requirements of a "closure report" are described in detail in 40 CFR 258.60 as referenced in the rule language, which aligns with 40 CFR 60.38f(f).Additionally, this term is well-understood by the regulated community subject to this rule.

40 CFR 258.60:
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-258/subpart-F
A cross reference would be helpful.

.0102
With respect to (f), where is the Director's authority to require an owner/operator to register pursuant to Section 02D .0200? I looked at 02D .0202 and it says the registration is pursuant to 143-215.107(a)(4). While (a)(4) does appear to give authority to require registration, (a)(4) gives that authority to the Commission, not to the Director.
The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to inter alia the Secretary or any other qualified employee of the Department.
Further, N.C.G.S. 143-215.106 specifies that the Department shall administer the air quality program of the State.
Please add these statutes to the History Note.

In (h)(6), where is the statutory authority for allowing the Director to award exemptions?
N.C.G.S. § 143-215.108(a) prohibits activities that contravene or will be likely to contravene standards established pursuant to N.C.G.S. §§ 143-215.107 or 143-215.107D unless obtaining a permit issued pursuant to the EMC's authority. The EMC has adopted rules implementing this permitting program pursuant to *inter alia* N.C.G.S. § 143-215.3 and, as authorized by N.C.G.S. § 143-215.3(a)(4), has delegated authority to the Director to implement the program as provided in the rules. The exemptions listed in this rule have been determined to not contravene the established standards. Here the EMC has delegated authority to the Director, as authorized by N.C.G.S. § 143-215.3(a)(4) to determine that, upon adequate demonstration, certain activities do not contravene established standards and thus do not require a permit.

In addition, N.C.G.S. § 143-215.107(a)(4) and (5) authorize the EMC with the power (emphasis added):

*(4) To collect information or to require reporting from classes of sources which, **in the judgment** of the Environmental Management Commission, **may cause or contribute to air pollution**…*

*(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…*
Please add the relevant statutes not already cited to the History Note.

These were very comprehensive and helpful responses, and I wanted to thank y'all for putting these together to help me understand the regulatory regime at issue here. It was very much appreciated.

Best,
Brian

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Burgos, Alexander N

Subject: FW: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

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From: Liebman, Brian R <brian.liebman@oah.nc.gov>
Sent: Wednesday, October 4, 2023 11:51 PM
To: Everett, Jennifer <jennifer.everett@deq.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Thank you, Jennifer. I'll take a look and get back to you as soon as I can.

Brian Liebman
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From: Everett, Jennifer <jennifer.everett@deq.nc.gov>
Sent: Wednesday, October 4, 2023 4:42 PM
To: Liebman, Brian R <brian.liebman@oah.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>; Reynolds, Phillip T <preynolds@ncdoj.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Brian,

Attached are the responses to your technical change requests and the re-written rules. Rule 02D .0506 is included because we updated the effective date in the history note, same for the repealed rule.

Thanks.

Jennifer

Jennifer Everett
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N.C. Depart. Of Environmental Quality
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https://deq.nc.gov/permits-rules/rules-regulations/deq-proposed-rules

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Request for Changes Pursuant to N.C. Gen. Stat. § 150B-21.10

Staff reviewed these Rules to ensure that each Rule is within the agency's statutory authority, reasonably necessary, clear and unambiguous, and adopted in accordance with Part 2 of the North Carolina Administrative Procedure Act. Following review, staff has issued this document that may request changes pursuant to G.S. 150B-21.10 from your agency or ask clarifying questions.

If the request includes questions, please contact the reviewing attorney to discuss.

In order to properly submit rewritten rules, please refer to the following Rules in the NC Administrative Code:

- Rule 26 NCAC 02C .0108 – The Rule addresses general formatting.
- Rule 26 NCAC 02C .0404 – The Rule addresses changing the introductory statement.
- Rule 26 NCAC 02C .0405 – The Rule addresses properly formatting changes made after publication in the NC Register.

Note the following general instructions:

1. You must submit the revised rule via email to oah.rules@oah.nc.gov. The electronic copy must be saved as the official rule name (XX NCAC XXXX).
2. For rules longer than one page, insert a page number.
3. Use line numbers; if the rule spans more than one page, have the line numbers reset at one for each page.
4. Do not use track changes. Make all changes using manual strikethroughs, underlines and highlighting.
5. You cannot change just one part of a word. For example:
    - Wrong: "~~a~~Association"
    - Right: "~~association~~ Association"
6. Treat punctuation as part of a word. For example:
    - Wrong: "day~~,~~; and"
    - Right: "~~day,~~ day; and"
7. Formatting instructions and examples may be found at: www.ncoah.com/rules/examples.html

If you have any questions regarding proper formatting of edits after reviewing the rules and examples, please contact the reviewing attorney.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: All Rules

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

Throughout these Rules, there are myriad references to the CFR, and many of these references adopt a definition or series of definitions from the federal regulations. With one exception (02D .0532), these references are made without a proper incorporation by reference, as required by G.S. 150B-21.6. I understand that these rules come from different sections and so the incorporation may be in another Rule, but please either show me where the incorporation is made, or add a valid incorporation pursuant to G.S. 150B-21.6 where appropriate.

For rules in Subchapter 02D, 15A NCAC 02D .0104 incorporates the CFR by reference as follows:

(a) If referred to in this Subchapter, the following materials shall be incorporated in this Subchapter by reference:
(1) a regulation codified in the Code of Federal Regulations (CFR); and
(2) a method established by the American Society for Testing and Materials (ASTM).
(b) The Code of Federal Regulations and American Society for Testing and Materials methods incorporated by reference in this Subchapter shall include subsequent amendments and editions unless a rule specifies otherwise.
(c) The Code of Federal Regulations is available in electronic form free of charge at https://www.gpo.gov/fdsys/search/home.action.

Additionally, 15A NCAC 02D .0103 provides an option for public inspection of referenced CFR rules at DEQ regional offices upon request.

For rules in Subchapter 02Q that reference the CFR, 15A NCAC 02Q .0106 incorporates the CFR as follows:

(a) The CFRs referenced in this Subchapter shall be incorporated by reference and shall include subsequent amendments and editions unless a rule specifies otherwise.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

(b) The CFR may be obtained free of charge online at https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

15A NCAC 02Q .0105 provides additional methods for obtaining copies of CFR Sections referenced in Subchapter 02Q, including public inspection at a DEQ region upon request.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0503

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

I have concerns about your statutory authority to regulate heat exchangers. G.S. 143-215.107(a)(5)a.2. also states that rules "shall not apply" to "an affected source under 40 C.F.R. Part 63, as amended." A search of 40 CFR Part 63 shows the term "heat exchanger" appears in 46 different entries. Please explain whether the CFR governs indirect heat exchangers in a way that affects EMC's rulemaking authority.

It is crucial to recognize that G.S. 143-215.107(a)(5)a. expressly applies only to the regulation of **toxic air pollutants** ("…rules adopted pursuant to this subdivision that control emissions of toxic air pollutants…"). 15A NCAC 02D .0503 does not regulate toxic air pollutants. Rather it regulates particulate matter (PM), which is a criteria pollutant and not a HAP or toxic air pollutant, and the rule is intended to facilitate the State's attainment and maintenance of the ambient air quality standards for particulate matter as allowed under G.S. 143-215.107(a)(5), which provides the EMC with the authority "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." These ambient air quality standards are provided in 15A NCAC 02D .0400.

In (c), line 17, does "particulate matter" mean PM2.5 and PM10, or something else?

Particulate matter (PM) is total particulate, which includes both $PM_{2.5}$ and PM_{10} and is defined in 15A NCAC 02D .0101. The test methods for determining PM are specified in Rule 02D .2609. The test methods include Method 5 of Appendix A to 40 CFR Part 60 and Method 202 of Appendix M to 40 CFR Part 51.

In (c), line 17, as written, the rule seems to capture any kind of combustion, not merely that from an indirect heat exchanger. Please consider re-writing to more clearly limit this requirement to discharges from heat exchangers.

Added "…discharged from any indirect heat exchanger through a stack or chimney…" to the rule language in Paragraph (c).

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

In (d), line 33-34, the list of fuels begins with "includes", which has an open-ended connotation. What other fuels, if any, are covered by this Rule?

The list includes most, but may not include all the fuels that generate particulate matter emissions from indirect heat exchangers. The sentence was revised to not include a list of fuels, but to include those fuels that generate particulate emissions. Revised the sentence to read: "For the purpose of this Rule, the term "fuels" includes all fuels that generate particulate matter emissions from indirect heat exchangers excluding wood and refuse not burned as a fuel."

In (d), line 33-34, the clause "but exclude wood and refuse not burned as a fuel". Does this mean that wood is excluded entirely, or is wood excluded only when not burned as a fuel?

The exemption of wood is meant to be separate and distinct from the exemption for "refuse not burned as fuel". Indirect heat exchangers that burn 100% wood are regulated by 02D .0504 and indirect heat exchangers that burn wood in conjunction with other fuels are regulated by Rule 02D .0503. The heat input equation in Paragraph (f) of Rule 02D .0503 is a ratio of the emission limits calculated under Rules 02D .0503 and 02D .0504 based on the relative heat inputs.

In (e), p.2, lines 3-5, the sentence "Fuel burning . . . previously been set." is unclear. Please clarify and revise the Rule accordingly.

The language of Paragraph (e), page 2, line 5 has been clarified as "…other fuel burning indirect heat exchanger…". This sentence places a restriction on the preceding language, which allows summation of fuel heat input across multiple heat exchangers at a site.

In (e), lines 6-7, the sentence "The removal . . . previously been established." is again unclear. Please clarify and revise the Rule accordingly.

The language of Paragraph (e), page 2, line 5 is revised to "…other fuel burning indirect heat exchanger…" for clarity. This sentence also places a restriction on the language that allows summation of fuel heat input across multiple heat exchangers at a site.

In (e), lines 11-12, does the sentence exempting wood and refuse not burned as fuel not repeat what was already contained in (d)? Why is this exemption only "for the purposes of this Paragraph"?

Paragraph (e) explains how to determine the maximum heat input for the indirect heat exchanger, which is the critical element needed to determine/calculate the applicable particulate matter emission standard per Paragraph (c). Restating that "refuse not burned as a fuel and wood shall not be considered a fuel" in Paragraph (e) specifically reinforces the fact that the heat input values associated with these items

should not be used in the calculation of maximum heat input for the indirect heat exchanger.

In (e), lines 12-15, the sentence "For residential . . . total heat input." is unclear. Please clarify and revise the Rule accordingly.

This language is specifying requirements of the preceding language (relating to summation of maximum heat input of all indirect heat exchangers at a plant) to residential and institutional buildings that are primarily burning fuel for comfort heat. The language is limiting the summation to only those heat exchangers that are located in the same plant or building or otherwise physically interconnected. This language was included in the original adoption of the Rule and has been understood by the regulated community since that adoption. To avoid potential confusion among the regulated community, this language was not revised.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0506

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

I have concerns about your statutory authority to regulate hot mix asphalt. G.S. 143-215.107(a)(5)a.1. states that rules adopted "shall not apply" to anything "subject to an applicable requirement under 40 C.F.R. Part 61, as amended." 40 CFR 61.144(a)(11) specifically enumerates "the manufacture of ***asphalt concrete****" (which is synonymous, as far as I can tell, with hot mix asphalt) as covered by the standards in 40 CFR 61.144(b). Please explain whether hot mix asphalt plants are regulated under 40 CFR 61.144, or any other part of 40 CFR 61, and if so, why EMC has statutory authority to regulate them.*

G.S. 143-215.107(a)(5)a. expressly applies only to the regulation of **toxic air pollutants** ("…rules adopted pursuant to this subdivision that control emissions of toxic air pollutants…") and states that this section does not apply to sources regulated by 40 CFR Part 61 or 40 CFR Part 63, both of which regulate hazardous air pollutants (HAPs) from emission sources. 15A NCAC 02D .0506 does not regulate toxic air pollutants. It only regulates particulate matter (PM), which is a criteria pollutant and not a HAP or toxic air pollutant, and the rule is intended to facilitate the State's attainment and maintenance of the ambient air quality standards for particulate matter as allowed under G.S. 143-215.107(a)(5), which provides the EMC with the authority "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." These ambient air quality standards are provided in 15A NCAC 02D .0400.

G.S. 143-215.107(a)(5)a.2. also states that rules "shall not apply" to "an affected source under 40 C.F.R. Part 63, as amended." 40 CFR 63, Subpart LLLL establishes "national emission standards for hazardous air pollutants for ***existing and new asphalt processing and asphalt roofing manufacture plants****." Please explain whether hot mix asphalt plants are regulated under 40 CFR 63, Subpart LLLL, or under any other part of 40 CFR 63, and if so, why EMC has statutory authority to regulate them.*

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

See response above. G.S. 143-215.107(a)(5)a. expressly applies only to the regulation of **toxic air pollutants**. 40 CFR 63 regulates emissions of HAPs from sources categories, while 15A NCAC 02D .0506 regulates emissions of PM from hot mix asphalt plants. Since PM is a criteria pollutant and not a HAP or toxic air pollutant, there is no conflict with N.C.G.S. 143-215.107(a)(5)a.2, and the EMC has the authority 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" (i.e., the standards in 15A NCAC 02D .0400) pursuant to N.C.G.S. 143-215.107(a)(5).

If indeed hot mix asphalt plants are subject to the regulations in 40 CFR 63, Subpart LLLL, can you explain the difference between the state regulation in (b) of this Rule (20% opacity averaged over 6 minutes) and the federal regulation in Table 1 of Subpart LLLL (requiring saturators and coaters for asphalt roofing manufacturing lines to limit visible emissions to 20 percent of any period totaling 60 minutes).

40 CFR Part 63, subpart LLLLL regulates hazardous air pollutants from asphalt processing and asphalt roofing materials. This is a different process than the hot mix asphalt manufacturing regulated by Rule 02D .0506. Therefore, these standards are regulating different processes/emission sources and are not conflicting.

Further, G.S. 143-215.107(a)(5)b. states that the rules shall be implemented as it relates to a "permit application for a new source or facility, or for the modification of an existing source or facility." This Rule appears to implement an emissions rate limit on any hot mix asphalt plant, not merely new sources or modifications, and does not mention a permit. Please explain whether this Rule relates to a permit for a new source or facility, or for the modification of any existing source or facility.

N.C.G.S. 143-215.107(a)(5)b provides instructions for the receipt of a permit application from a new facility or modification of an existing facility that results in the increase of **toxic air pollutants**. This provision authorizes the Department—notwithstanding the exemptions in G.S. 143-215.107(a)(5)a.—to require permitting under the State's **toxics** rules where a source that would otherwise be exempt presents an unacceptable risk to human health. 15A NCAC 02D .1100 establish separate requirements for the permitting of toxic pollutants. Therefore, N.C.G.S. 143-215.107(a)(5)b does not pertain to Rule 02D .0506 because this rule is not triggered or contingent "upon receipt of a permit application…that would result in an increase in the emission of toxic air pollutants." N.C.G.S. 143-215.107(a)(5)b.

In (b), line 10, and (e), line 18, what does "averaged" mean? Arithmetic mean? Mode? Median?

The term averaged means the arithmetic mean of the opacity readings during the six-minute period. This term is understood by the regulated community and is part of EPA Method 9 (40 CFR Part 60, Appendix A-4, Method 9) for determining opacity. A single Method 9 reading requires a total of 24 visible emissions observations taken at 15-second intervals, for a total of six (6) minutes. Those observations are averaged to calculate the opacity value. 15A NCAC 02D .2610 specifies that Method 9 of Appendix

A to 40 CFR Part 60 shall be used to show compliance with opacity standards if opacity is determined by visual observation.

In (d), line 16, is "fugitive non-process dust" defined anywhere? I know "fugitive emission" is defined in 02D .0101, but I'm not sure what "non-process" means in this context.

Fugitive non-process dust is the dust created by other activities at a hot mix asphalt plant that are not directly related to the hot mix asphalt process. The main source of fugitive non-process dust comes from dust generated by trucks traveling into, out of, and within the facility (e.g., on unpaved roads). Since the truck traffic is not part of the facility's hot mix asphalt process, these are termed "non-process" emissions. The permit for the facility will outline these sources.

In (e), line 17, does the term "sources" refer to a discharge other than the "stack or chimney" mentioned in (a), line 5?

Paragraphs (a) through (d) regulate particulates from hot mix asphalt plants that are emitted through stacks, chimneys, vents, and non-process fugitive sources. Paragraph (e) captures any other sources at a hot mix asphalt plant that results in fugitive emissions and limits the opacity of such emissions to 20 percent averaged over 6 minutes.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0532

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

Throughout the Rule, where are the "national ambient air quality standards" defined or referenced?

The national ambient air quality standards (NAAQS) are provided in 15A NCAC 02D .0400, *Ambient Air Quality Standards*. These standards are set by EPA and apply nationwide.

In (c)(1), lines 10-11, the sentence is very unwieldy. I believe you're trying to say the Rule does not apply when the source is located in a nonattainment area. Consider revising for clarity.

Sentence revised to read as follows "emission of a pollutant from a new or modified source located in an area designated as nonattainment for that pollutant in 40 CFR 81.334:"

In (c)(1), line 11, designated by whom?

Following any revision to the NAAQS, the State makes recommendations of the designation (attainment/unclassifiable or nonattainment) for each county and submits these recommendations to EPA. Following review of the State's recommendations, the EPA makes the final designations which are listed in 40 CFR 81.334. This citation was included in the revised Paragraph (c)(1) above.

In (c)(4), line 26, and (e)(3)(B), p.2, line 12, is "locality" defined? It is not in Section II.A. of Appendix S of 40 CFR Part 51.

The attainment status designations in 40 CFR 81.334 are typically broken down by county, but some of the designations of the national ambient air quality standards are broken down into townships or metropolitan areas. Locality applies to either the county designation or the township/metropolitan area designations.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

In (e)(1), lines 36-37, what is the "lowest achievable emission rate"?

The lowest achievable emission rate, or LAER, is used by the EPA to determine if emissions from a new or modified major stationary source are acceptable under State Implementation Guidelines (SIP) guidelines. LAER standards are required when a new or modified stationary source is located in an area designated as non-attainment and requires nonattainment new source review (NSR) pursuant to 15A NCAC 02D .0531. LAER is defined in 40 CFR Part 51, Appendix S, Section II.A, as referenced in Paragraph (b) of this rule. It is the most stringent air pollution standard, above the best available control technology (BACT) and reasonably available control technology (RACT) standards. This is a term understood by the regulated community.

Also in (e)(1), lines 36-37, to what does the "nonattainment pollutant" refer to? From (c)(1), it appears that this Rule doesn't apply to pollutants that are "designated as nonattainment".

The "nonattainment pollutant" refers to the pollutant for which there is a violation of the national ambient air quality standard, and the source contributes to such violation. As stated in paragraph (a), the rule applies to new major stationary sources and major modifications that would ***contribute*** to a violation of the NAAQS, but not ***cause a new*** violation of the NAAQS. Further, Subparagraph (c)(1) contains the Rule would not apply to nonattainment pollutants from a source that is located in an area that is designated as nonattainment for that pollutant, whereas Subparagraph (e)(1) pertains to emissions of a nonattainment pollutant that result from a source located outside of a nonattainment area (but contribute to a violation of the NAAQS). This could result if a facility is located in an adjacent county or upwind of the nonattainment county or locality. The provisions of 15A NCAC 02D .0532 originate from the EPA's Interpretive Ruling codified under 40 CFR Part 51, Appendix S.

In (e)(2), p.2, lines 2-3, please omit the parenthetical and incorporate the parenthetical material into the body of the Rule.

The parentheticals have been removed.

In (e)(3), lines 9-10, does this mean you are requiring sources to comply with the heightened nonattainment area permit requirements even if they are not in a nonattainment area?

Yes, this rule is for sources that would contribute to a violation of the national ambient air quality standards, but not cause a new violation. Under 02D .0532(e)(3)(A), the source can comply with nonattainment NSR requirements in lieu of the requirements of 02D .0532(e)(3)(B).

In (e)(3)(B), line 16, what does it mean to "partially" waive the requirements of this Part?

This means that some of the requirements in Part (e)(3)(B) would be waved for resource recovery facilities burning municipal waste, and for sources that must switch

fuels due to lack of adequate fuel supplies or if the source is required to be modified by the EPA. This language originates from 40 CFR Appendix S to Part 51, IV.B, dated July 1, 2019, as incorporated in paragraph (g) of the rule. In this Section of the federal rule, the reviewing authority may exempt these sources from Conditions 3 and 4 under Section IV.A (which corresponds to 02D .0532(e)(3)(B)). The word "partially" is replaced in this Part with a reference to Section IV.B of 40 CFR 51, Appendix S.

Are the elements in (i)-(iii) under (e)(3)(B) required for the first two grounds for partial waiver, or only the third?

The elements in (i)-(iii) only apply to the sources that must switch fuels or be modified as a result of EPA regulations. This language originates from Section IV.B of Appendix S of 40 CFR Part 51 and has been reformatted in the Rule to be clearer and align with the federal ruling.

In (e)(3)(B)(i), line 20, how is the applicant to make this demonstration?

This demonstration would be made on a case-by-case basis, specific to the nature and quantity of pollutants and control technologies in the area of the source for which the demonstration is being made.

In (e)(3)(B)(i), line 20, what is a "sufficient" air quality offset?

Sufficient means that there is an improvement in the locality where the national ambient air quality standard is not met, as stated in the first sentence of Part (e)(3)(B).

In (f), what kind of "enforceable limitation" does the Rule encompass? If this means the relaxation of a federal regulation, does that mean that the State is enforcing "a more restrictive standard, limitation, or requirement than those imposed by federal law or rule"?

The "enforceable limitation" encompasses both State and Federal regulations, and any federally-enforceable limit in the facility's permit. See definition of "federally-enforceable" in 40 CFR Appendix S to Part 51 II.A.12. Sometimes a facility will request such a limitation to restrict their allowable emissions (see 40 CFR Appendix S to Part 51 II.A.11.) thus avoiding PSD or nonattainment NSR requirements; however, if the facility later requests removal or relaxation of this limitation, the facility may be subject to PSD or nonattainment NSR as if it is a new source. The rule language for Paragraph (f) comes from 40 CFR 51 Requirements for Preparation, Adoption, and Submittal of Implementation Plan, Appendix S, Section IV, Paragraph F. Therefore, the State is not enforcing "a more restrictive standard, limitation, or requirement than those imposed by federal law or rule", but rather following the EPA requirements.

In your History Note, why the reference to G.S. 150B-21.6? It is not necessary to cite to the APA when making an incorporation by reference within the Rule.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

It is unnecessary to reference G.S. 150B-21.6 and it has been removed from the History Note.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0614

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (a), line 4, did you mean "the requirements of this Rule" instead of "Paragraph"?

"Paragraph" is replaced with "Rule" in line 4.

In (a), line 5, is "emissions unit" defined anywhere?

This industry term is well known among stakeholders and engineering professionals within the field of air quality. The EPA defines "emissions unit" as any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under Subsection 112(b) of the Clean Air Act.

This can be found under the Vocabulary Catalog found here: https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Air%20Permitting%20Terms

In (a)(3), lines 13-15, to be clear, you're amending the definition of "potential to emit" in 40 CFR 64.1, which states:

> *Potential to emit* means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. **Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator.** This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in title IV of the Act or the regulations promulgated thereunder.

As I understand it, the bolded portion is omitted from the definition adopted in this Rule. Please confirm.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

Lines 14-15 of (a)(3) ("*except that emission reductions achieved by the applicable control device shall not be taken into account*") only excludes the portion of text from EPA's definition of a unit's "potential to emit" that allows inclusion of air pollution control equipment ("*including air pollution control equipment*") when determining "potential pre-control device emissions" for the purposes of 15A NCAC 02D .0614. This is because Compliance Assurance Monitoring (CAM) applicability is based on a unit's pre-control emissions. However, other physical or operational limits, such as restrictions on hours of operation or materials, can be considered when determining a unit's applicability of CAM if the limitation is federally enforceable. For more information on CAM, see https://www.epa.gov/air-emissions-monitoring-knowledge-base/compliance-assurance-monitoring .

In (b)(1)(F), p.1, line 36 to p.2, line 4, this seems to be illustrative language rather than pure rule language. If you want to leave this kind of language in the Rule, please consider revising in compliance with 26 NCAC 02C .0110.

The phrase "such as" is replaced with "Note: for example," to comply with 26 NCAC 02C .0110.

*In your History Note, I'm curious about the reference to G.S. 143-215.107(a)(3). Specifically, why the reference to "air quality standards" in (a)(3) as opposed to the "emission control standards" referenced in (a)(5), given that the Rule explicitly applies to "a pollutant-specific **emissions unit**" (emphasis added).*

The history note for this rule does not specify G.S. 143-215.107(a)(3), but rather G.S. 143-215.107(a)(4), which relates to collecting information and reports from emission sources, since Rule 02D .0614 deals with monitoring and reporting requirements from Title V facilities.

Additionally, given that the Rule basically directs the regulated public to specific parts of the CFR, why isn't there a reference to 143-215.107(a)(10)?

The reference to 143-215.107(a)(10) is added to the history note since CAM is a federal monitoring requirement.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0918

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (b) and (c)(1), the rule refers to "sheet exterior . . . basecoat and overvarnish", despite these terms not being defined in (a). Is there a reason for the omission?

According to EPA's AP-42 CH 4.2.2.2 Can Coating, "Cans may be made from a rectangular sheet (body blank) and 2 circular ends (3-piece cans), or they can be drawn and wall ironed from a shallow cup to which an end is attached after the can is filled (2-piece cans)." Therefore, the sheet refers to the rectangular body of the can. The regulated industry understands the term "sheet" in the context of can coating processes. Lines 20 and 25 are referring to the exterior base coating (as defined in (a)(2)) of the sheet/body and the interior base coating (as defined in (a)(3)) of the sheet/body. Overvarnish is defined in 15A NCAC 02D .0918 at item (5).

In (c)(3), lines 31-32, "three piece applicator" is not defined in (a). Is there a reason for the omission?

This refers to an applicator with three pieces, which is often used in three-piece side seam coating operations. This rule is based off EPA's Control Technique Guidelines (CTG) for implementing reasonably available control technology (RACT) from this source category:
https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000UNN9.txt

Below is an industry example which can include all types of cans like paint cans, vegetable cans, and soda cans.

https://www.nordson.com/en/divisions/industrial-coating-systems/application-solutions/container-coating

In (d), line 36, what "air quality permit" are you referring to? A state permit? Federal?

This refers to either a state (02Q .0300) or federal (02Q .0500) air permit. The rule was edited to add references to clarify this.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

In (d), p.2, line 1, is the second reference to "this Rule" (…any can coating line subject to this Rule…) correct? Should that say "this Paragraph"?

Changed Rule to Paragraph.

Throughout (d)(1)-(4), what are "exempt compounds"?

As stated in item (29) in 15A NCAC 02D .0901, compounds that are excluded from the definition of volatile organic compound are defined as "any compound that is listed under 40 CFR 51.100(s) as having been determined to have negligible photochemical reactivity."

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0926

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (a)(1), more for my own understanding than anything, but why is annual throughput divided by 312 days, rather than 365?

This is standard to remove Sundays from the days of operation because they do not have throughput on that day of the week, resulting in 312 operational days for the facility. This makes sense for this context, as those are the days of potential emissions from the transfer of gasoline product into or out of storage. This question was also asked during the readoption of the rule in 2020 and was addressed then as well. Therefore, the specified days are necessary and reasonable in the context of this application.

In (a)(3), why is the definition of "bulk gasoline plant" different here than from the definition offered in .0932(a)(2)?

This definition in .0926 is correct, but it is also correct that the definitions should match. Rule .0932 is corrected to match the current language "cargo tank" as written in the definition of .0926.

In (a)(3), lines 10-11, what is an "account cargo tank"?

"Account" refers to the cargo tank as holding an account for the receiving entity of the fuel.

Is there a reason that the term "distribution" is included in the definition of "bulk gasoline plant" in (3) but not included in the definition of "bulk gasoline terminal" in (4)? It seems to me from the definitions that gasoline is actually distributed from both plants and terminals.

Here distribution refers to the end users of the product. In this instance terminals only supply to bulk plants, which store less product than terminals. Bulk plants supply others, including the end consumers of the product itself. These definitions

are based off the federal EPA language and have been vetted thoroughly over the years by private and public stakeholders.

In (c), p.2, lines 3-4 is it accurate to say that the receiving stationary storage tank should be equipped for "bottom filling" as the term is used in (a)?

Yes, this is accurate. The language of (c), p.2, lines 3-4 aligns with that in the definition of "bottom filling" in Paragraph (a).

Additionally, line 1 has been revised to read with better clarity and to indicate a singular storage tank.

In (d), line 6, make the first instance of "cargo tank" plural.

This inconsistency has been corrected with the article "a" to clarify the singular form of the first instance of "cargo tank" in this sentence.

In (f)(1), line 22, am I correct in understanding that the rule requires the submerged filling equipment to only be "available" and that the owner or operator is not actually required to use it?

The submerged filling equipment is intended to be used if (f)(1) is the chosen method of compliance. The language has been revised for clarity.
Whether the tank is equipped for bottom filling ((f)(2)) or the submerged filling equipment ((f)(1)) attached to the tank for the filling activity is used, the same goal of evaporation prevention is achieved.

In (h)(1), line 31, please define "good working order"?

This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of bulk gasoline plant, including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs for the control of VOC emissions, with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term of art among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule:
https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF

Similarly for Tennessee (page 46-9):
https://www.epa.gov/system/files/documents/2022-09/Knox%20Section%2046.pdf

In (h)(3), line 34, is there a definition for "vapor tight"? I've seen this phrase across the Section .0900 rules submitted for review, and I think it's obvious what it means, but given the technical nature of these rules, I wondered if there was an explicit definition.

Broadly, "vapor tight" means the unit and its fittings are not measurably releasing vapor to the atmosphere. The EPA defines "vapor tight" for a cargo tank in 40 CFR 63.421 as "*a gasoline cargo tank which has demonstrated within the 12 preceding months that it meets the annual certification test requirements in §63.425(e), and which is subject at all times to the test requirements in §63.425(f), (g), and (h).*" The annual certification test in §63.425(e) requires a leak detection test using EPA Test Method 21 and a pressure test of the cargo tank's internal vapor valve. The leak detection test requires that "*a vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.*" The test requirements in §63.425(f), (g), and (h) are a leak detection test using EPA Test Method 21, a nitrogen pressure decay field test, and a continuous performance pressure decay test.

In (j), p.3, line 9, do you have statutory authority to require owners to paint their tanks a certain color? The statutory authority quoted here (143-215.107(a)(1) and (5)) allows EMC to adopt rules for "prevention, abatement, and control of air pollution" and to "develop and adopt emission control standards" to meet air quality standards. I don't see how the color of the tank relates to air pollution or emissions.

The color of paint does relate to air quality protection in this instance. The paint is reflective of heat which minimizes evaporation of the contents in storage as well as aids in the visual detection of leaks for the storage unit itself when compliance engineers perform visual inspections.

Specifically, the API Manual of Petroleum Measurement Standards (latest solar absorptance factors under Chapter 19.1, Table 5) goes into detail about the best materials and paint for preventing product loss and emissions via evaporation. Aluminum material is considered the best for above ground tanks including mobile cargo tanks of petroleum which is why you may see on the road this type hauled on the interstate. Aluminum storage does not need to be painted, but if the storage tank is above ground and made of steel then painting it silver or white is a cheaper option as weight of the container is not as critical in a stationary application, aluminum being lightweight but cost prohibitive. Darker colors would increase heat absorption, thus increasing evaporation of the materials in the tank.

Out of curiosity, why are the references to Rules 02D .0960 and .2615 being deleted here? Do these requirements no longer apply to gasoline cargo tanks? I see in .0932 that there's still a reference to .2615, but it seems like the reference to .0960 is gone completely. Why delete the report requirement here?

Rule 02D .0960 is repealed with this rule package, as its requirements were incorporated into another rule during the readoption rulemakings. With the repeal of 02D .0960, any cross references are also removed from other rules. All reporting requirements from 02D .0960 are in .0932 and, in working with internal and external

stakeholders, it was decided by consensus the direct reference to .2615 was no longer necessary and could cause confusion without the context of .0932.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0927

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

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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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

I have concerns about your statutory authority for this Rule. It appears to me that Bulk Gas Terminals are an affected source under 40 CFR 63.420(a). G.S. 143-215(a)(5)a.2. states that these rules "shall not apply" to "an affected source under 40 CFR Part 63, as amended." Please explain whether Bulk Gas Terminals are regulated under the CFR, and if so, why EMC would continue to have rulemaking authority to regulate them.

G.S. 143-215.107(a)(5)a. expressly applies only to the regulation of **toxic air pollutants** ("…rules adopted pursuant to this subdivision that control emissions of toxic air pollutants…").

This rule is in place to ensure compliance with the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, and not North Carolina's air toxics rules. This rule is incorporated into the EPA-approved State Implementation Plan (SIP) and carries out requirements of the EPA. https://www.epa.gov/sips-nc. Rule 02D .0927 became effective in 1985 as part of revisions to the North Carolia State Implementation Plan (SIP) necessary to bring nonattainment areas for photochemical oxidants (ozone) into compliance with the NAAQS. Ozone is generally regulated through its precursors, VOCs and NOx.

Section 172(c)(1) of the Clean Air Act (CAA) requires SIPs to provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable. Reasonably available control technology (RACT), a subset of RACM, relates specifically to stationary point sources. CAA Section 182(b)(2) requires states to adopt RACT rules for all areas designated nonattainment for ozone and classified as moderate or above.

The CAA also required EPA to publish Control Technology Guidelines (CTGs) for implementing RACT (see https://www.epa.gov/ground-level-ozone-pollution/control-techniques-guidelines-and-alternative-control-techniques). At the time that public hearings were held on these SIP rules, there were three areas in North Carolina

designated as nonattainment for ozone: Buncombe, Durham, and Mecklenburg Counties. Part D of CAA Section 172 requires States with moderate nonattainment areas to demonstrate reasonable further progress through (among other items) a SIP revision to implement RACT for each source category with a CTG:

(2) Reasonably available control technology
The State shall submit a revision to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology under section 7502(c)(1) of this title with respect to each of the following:

> *(A) Each category of VOC sources in the area covered by a CTG document issued by the Administrator between November 15, 1990, and the date of attainment.*
> *(B) All VOC sources in the area covered by any CTG issued before November 15, 1990.*
> *(C) All other major stationary sources of VOCs that are located in the area.*

Although there are currently no areas in North Carolina that are designated as nonattainment, areas redesignated from nonattainment to attainment must submit a Maintenance Plan (see Clean Air Act Section 175A), which must contain provisions to prevent the air quality from deteriorating into nonattainment status again, including provisions that the State will implement all measures with respect to the control of the air pollutant concerned which were contained in the SIP for the area before redesignation of the area as an attainment area. Therefore, these RACT regulations must remain in place and adopted into the State's SIP. N.C.G.S. 143.215-107(a)(7) and (10) provide the EMC with the authority:

(7) To develop and adopt standards and plans necessary to implement programs for the prevention of significant deterioration and for the attainment of air quality standards in nonattainment areas.

And

(10) Except as provided in subsection (h) of this section, to develop and adopt standards and plans necessary to implement requirements of the federal Clean Air Act and implementing regulations adopted by the United States Environmental Protection Agency

What is a SIP:
https://www.epa.gov/air-quality-implementation-plans/basic-information-about-air-quality-sips#:~:text=A%20State%20Implementation%20Plan%20(SIP,of%20the%20Clean%20Air%20Act.

List of NC Rules incorporated into the Approved SIP:
https://www.epa.gov/sips-nc/epa-approved-statutes-and-regulations-north-carolina-sip

Additional information regarding the organization of certain rules in relation to air quality protection:

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https://www.epa.gov/air-quality-management-process

Is there a reason that "Bulk Gasoline Terminal" is defined differently in this Rule than in .0926?

The definitions are catered to the type of storage to which the rule applies. Rule 02D .0926 does not specify requirements for terminals but includes a definition since they are a part of the supply chain for the smaller bulk plants to which the rule applies. Rule 02D .0927 contains requirements that apply to the terminals, so the definition is intended to reflect the EPA language by including the specific phrasing "pipeline breakout station."

In (a)(7), line 30, I believe "remove" should be "removing".

"Remove" has been corrected to "removing".

In (a)(8), line 32, the commas around "remaining in an empty tank" should be omitted.

This has been corrected.

In (a)(9)(A) and (B), lines 35 and 36, is there a definition for "hazardous liquid"?

This definition of pipeline breakout station reflects that for "breakout tank" in 49 CFR 195.2, which also defines "hazardous liquid" as "petroleum, petroleum products, anhydrous ammonia, and ethanol or other non-petroleum fuel, including biofuel, which is flammable, toxic, or would be harmful to the environment if released in significant quantities." The scope of hazardous liquid to which this rule applies is narrowed by the incorporation of pipeline breakout station into the definition of "bulk gasoline terminal" in (a)(1)(A) as specific to "an interstate oil pipeline facility."

In (b), p.2, line 1, what is the "appurtenant equipment"? Is it described in this rule or another?

"Appurtenant" refers to something that belongs to, is attached to, or goes with something else. "Appurtenant equipment" means tools/instruments etc. that are used for a specific purpose or task. This is a general term that the regulated community understands means the equipment connected to or associated with something, in this case the sentence refers to bulk gasoline terminals.

In (d), line 16, what are the "cargo tank pressure relief settings"?

This is an industry standard and marked individually on each cargo tank. The settings vary by manufacturer, the number of chambers in a cargo tank, and other design features.

In (e), line 17, do you have statutory authority to require owners to paint their tanks a certain color? The statutory authority quoted here (143-215.107(a)(1) and (5)) allows EMC to adopt rules for "prevention, abatement, and control of air pollution" and to

"develop and adopt emission control standards" to meet air quality standards. I don't see how the color of the tank relates to air pollution or emissions.

The color of paint does relate to air quality protection in this instance. The paint is reflective of heat which minimizes evaporation of the contents in storage as well as aids in the visual detection of leaks for the storage unit itself when compliance engineers perform visual inspections.

Specifically, the API Manual of Petroleum Measurement Standards (latest solar absorptance factors under Chapter 19.1, Table 5) goes into detail about the best materials and paint for preventing product loss and emissions via evaporation. Aluminum material is considered the best for above ground tanks including mobile cargo tanks of petroleum which is why you may see on the road this type hauled on the interstate. Aluminum storage does not need to be painted, but if the storage tank is above ground and made of steel then painting it silver or white is a cheaper option as weight of the container is not as critical in a stationary application, aluminum being lightweight but cost prohibitive. Darker colors would increase heat absorption, thus increasing evaporation of the materials in the tank.

In (h), line 24, do you have statutory authority to require owners to install decks on their tanks? The statutory authority quoted here (143-215.107(a)(1) and (5)) allows EMC to adopt rules for "prevention, abatement, and control of air pollution" and to "develop and adopt emission control standards" to meet air quality standards. I don't see how the installation of a deck relates to air pollution or emissions.

This does not refer to a deck a person walks on, but a component of the floating roof of the tank. Floating roof tanks reduce air emissions by resting on the liquid surface, thus reducing the vapor space in the tank and evaporation of the liquid contents. The specifications in this paragraph are common in the industry and serve the primary function of preventing product loss through evaporation, (i.e., VOC emissions).

See EPA's AP-42 (Compilation of Air Pollution Emission Factors), Chapter 7, page 7.1-5:

https://www.epa.gov/sites/default/files/2020-10/documents/ch07s01.pdf

The below document has basic information that a typical engineer working in the petroleum industry would need to know to function in their job and it includes many of the terms of art specific to terminals.

https://epcmholdings.com/petroleum-storage-terminal-basics/

In (i)(2), line 32, what is a "cluster"?

In this context, the cluster includes the sources of benzene emissions (including the pipeline and marketing terminals served by the pipeline) around the terminal (that existed before December 1, 1992 and is increasing benzene emissions).

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In (i)(2), line 33, what are "marketing terminals"?

In this context, the terminals which trade within the same market as the affected terminals are all within the marketplace to sell gasoline from the same pipeline. Section 4.6 of EPA's Control Techniques for Volatile Organic Emissions from Stationary Sources (https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000M8SN.txt) describes how marketing terminals fit into the overall operation of petroleum liquids transportation and marketing:

"Each operation involved in the transportation and marketing of petroleum liquids represents a potential source of evaporative organic emissions. Crude oil is transported from production operations to the refinery via tankers, barges, tank cars, tank trucks, and pipelines. Refined petroleum products are conveyed to fuel marketing terminals and petrochemical industries in the same manner. From the fuel marketing terminals, the fuels are delivered via tank trucks to service stations, commercial accounts, and local bulk storage plants. The final destination for gasoline is normally a motor vehicle gasoline tank. A similar distribution path may also be developed for fuel oils and other petroleum products."

In (j), p.3, lines 1-6, the language is unwieldy and very unclear. It seems like this is a simple idea – that owners emitting toxic air pollutants under a 02Q .0700 permit issued before 12/1/92 need to continue to comply with the terms of that permit as they bring their terminals into compliance with the requirements of 02D .1100. However, as written it's not very clear. Consider revising.

This paragraph has been revised for clarity.

In (j), line 1, what is an "air permit"?

This is corrected to read "air quality permit" (meaning a permit issued from the DAQ) for toxic air pollutants, which are issued pursuant to 02Q .0700, as referenced in the rule language.

In (j), lines 4-5, I'm not sure I understand what this language is doing. The Rule says the owner will bring the terminal into compliance with 02D .1100 "according to the terms and conditions of the permit (which I assume is the 02Q .0700 permit), in which case the . . . terminal shall continue to need a permit to emit toxic air pollutants. . . ." Are you saying achieving compliance with 02D .1100 doesn't obviate the need for the 02Q .0700 permit?

That is correct. The applicability criteria for an air toxics permit are listed within the 02Q .0700 rules. Among other criteria, the need for a toxics permit is based on the emission rate of the toxic pollutant (see 02Q .0711), which are different than the acceptable ambient level (AAL) concentrations in 02D .1104. Emission rates are expressed as mass flow rates (e.g., pound per hour) from a stack or chimney, while the resulting ambient concentration (typically parts per million or micrograms per cubic meter) depends on site- and source-specific parameters that affect air dispersion, such as discharge rates, meteorological conditions, and surrounding terrain.

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In (j), lines 5-6, when is the owner or operator of a terminal exempt from paragraphs (e) through (i)? When they achieve compliance with 02D .1100? Or is it merely when they get a 02Q .0700 permit?

The owner or operator would be exempt from (e) through (i) if they received an air toxics permit pursuant to 02Q .0700 before December 1, 1992. The language is revised for clarity.

Out of curiosity, why are the references to Rules 02D .0960 and .2615 being deleted in (k), line 8? Do these requirements no longer apply to bulk gasoline terminals? I see in .0932 that there's still a reference to .2615, but it seems like the reference to .0960 is gone completely. Why delete the report requirement here?

Rule 02D .0960 is repealed in this rulemaking package as it is duplicative of requirements in another rule. All reporting requirements of 02D .0960 are within .0932, and in working with internal and external stakeholders it was decided that the direct reference to .2615 no longer was necessary and could cause confusion without the context of .0932.

In (n), line 17, does 02D .0903 actually require visual inspection? That rule says only that the owner or operator shall install, operate, and maintain monitoring instruments "or procedures as necessary to comply with the requirements of this Section". Even if a visual inspection requirement is somewhere else in Section .0900, it surely is not in Rule .0903. Please revise.

The requirement for visual inspections is in 02D .0927(n). The reference to 02D .1903 is intended to encompass the general recordkeeping, reporting, and monitoring requirements that apply to any volatile organic compound (VOC) emission source, such as maintaining "written data and reports relating to…procedures that document the compliance status of the volatile organic compound emission source." The language of 02D .0927(n) has been revised for clarity.

In (o), line 25, is this weekly inspection for leaks in addition to the daily inspection required by (n)?

Yes, a visual inspection must occur daily, and a more involved inspection must occur weekly, which includes either sensory observation (sight, sound, and smell) or instrument measurement (using either a VOC measurement device or an explosimeter). If the weekly inspection is also a visual inspection, the weekly inspection on this day of the week will also serve as the daily visual inspection so personnel are not required to walk around the facility twice on the same day. Because damage can occur suddenly overnight from weather events and other unforeseeable events, daily inspections are important to prevent sudden emissions leaks, but this weekly inspection provides an objective record to track subtle leaks such as from failing rivets, weakening welds, and cracked gaskets. This is why the different forms of reporting are important to maintain the integrity of the storage tank itself in minimizing emissions.

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In (p)(2), p.4, line 1, what are you asking for with respect to "nature" and "severity" of the leak?

This is dependent upon the method used to find that leak (sensory observation or instrument measurement) and might include a description of the observed leak or the level of pollutant detected by an instrument. This refers to major leaks like hurricane damage or from subtle leaks such as those from failing rivets, weakening welds, and cracked gaskets.

In (p)(5), line 4, "compliance" with what? Paragraph (p)? If so, what other information must be included in the report, other than what you have required here?

Compliance with this Rule. This is a specification for a facility to provide other means such as a third-party test report of the equipment being leak-tight.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0928

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

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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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (a)(2), line 9, should it be "sources of supply"?

This has been corrected.

In (a)(8), it may be clearer to break the definition into two sentences as follows: "'Motor Vehicle' means every vehicle which is self-propelled and every vehicle designed to run upon the highways which is pulled by a self-propelled vehicle. This term shall not include mopeds or electric assisted bicycles as defined in G.S. 20-4.1." As currently written, it seems like the "not including" language is modifying only "pulled by a self-propelled vehicle".

This definition was modified based on the suggestion above. Typically, the EPA's definitions are used in air quality rules, but in this instance the NC DOT definition is considered the most applicable for clarifying the intent of the rule. For example, gasoline stations at marinas servicing only boats are not subject to stage I vapor recovery.

In (a)(10), line 25 and in (a)(14), p.2, line 1, what "facility" are you referring to? A gasoline dispensing facility? Or something else?

The regulated community understands this general term refers to any facility that is subject to this Rule 02D .0928 pursuant to Paragraph (b). This includes gasoline dispensing facilities and gasoline service stations.

In (c)(1), line 7, what is the equivalent to a floating roof?

This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities. The technology for gasoline storage is ever advancing and this phrasing allows for flexibility for a floating roof equivalent in prevent emissions. For example, the difference between internal and external floating roof technology. Below are some resources to help visualize why this

language is helpful to stakeholders in application of the rule. When viewing tanks at a service station from the outside, the tank may appear to have a fixed roof, but an internal floating roof may rest on the liquid inside the tank, providing the same (or better) control of gasoline vapors as an external floating roof.

http://www.largestoragetank.com/news/comparisons-between-internal-floating-roof-storage-tank-and-external-floating-storage-tank.html

https://www.youtube.com/watch?v=DNRpLiXecC4

In (d)(2), line 24, define "good working order".

This is a common term used throughout industry to mean that it works as originally intended or designed in this application. Research into the history of this rule also found that this phrase was requested by industry. This phrase is included in many state regulations for this exact type of gasoline storage including Alabama, Kentucky, Pennsylvania, West Virgina, and Wisconsin. This exact phrasing is found in so many states because they also have in their SIPs the control of VOC emissions with the EPA providing language. As these neighboring states employ the same language without defining the phrase, there does not appear to be confusion around this term among air quality field professionals.

See page #7 of the proposed rule for the latest version of a very similar rulemaking for the state of West Virginia with the exact wording as North Carolina's rule: https://apps.sos.wv.gov/adlaw/csr/readfile.aspx?DocId=1922&Format=PDF

In (d)(3), line 26, please define or delete "properly".

Please refer to the response above for "good working order" it is the same situation with language used across many states. It is not enough for a device to simply be working, which could mean that it is simply operating (but possibly not well). The unit needs to be well-maintained in accordance with the manufacturer's recommendations and specifications and good engineering practices.

In (d)(4), line 28, define "proper working order". Consider deleting "proper".

Please refer to the response above for "good working order" and "properly". It is the same situation with language used across many states.

In (e)(1)(A), line 36, what are you requiring by saying "poppeted or unpoppeted"? Is there another option?

The poppeted adaptor is like a turkey baster whereas an unpoppeted adaptor is a plain fitting which attaches the hose line to the connector port of a storage tank. A plain fitting called an unpoppeted adaptor is acceptable and there are many designs, but a poppeted adaptor is an advanced more expensive design for personnel to see if there is still vapor in the hose being transferred so as not to disconnect the hose line prematurely and risk atmospheric exposure to gasoline vapors. The inclusion of

"poppeted or unpoppeted" in the rule language makes it clear to the reader that either type of adaptor is acceptable since this question was often raised.

An example of a poppeted vapor recovery adaptor can be found below:
https://www.olstaco.com/vr3100/

In (e)(2), p.3, line 2, what is an "equivalent" to a refrigeration-condensation system?

This is an approved variation incorporated into the North Carolina SIP to provide maximum flexibility to the North Carolina facilities and would be a system that provides for the same or better control as that specified for refrigeration-condensation systems (90% by weight recovery of VOCs in the displaced vapor).

In (i), line 13, what are "Stage 1 controls"?

Stage I Vapor Recovery is used during the refueling of gasoline storage tanks to reduce hydrocarbon emissions. The term "Stage I" is well-known throughout the industry and stems from EPA, as there are also "Stage II" vapor recovery requirements for nonattainment areas that are not applicable in North Carolina. The DEQ website provides an overview explanation of the Stage I Vapor Recovery program:
https://www.deq.nc.gov/about/divisions/air-quality/air-quality-compliance/stage-i-vapor-recovery

For further information on Stage I controls, the below seven-minute video provides an overview for these controls as related to Rule 02D .0928.

https://www.youtube.com/watch?v=nHb1gPVD7V4

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

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REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0932

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In reviewing this Rule, the staff recommends the following changes be made:

In (a)(2), why is the definition of "bulk gasoline plant" different here than from the definition offered in .0926(a)(3)?

The definitions in .0926(a)(3) and .0932(a)(2) should match. It appears at some point at the beginning of 2020 there was an error in review where the old version of "trailer" reverted to where "cargo tank" should have been. This rule .0932 is now corrected to match the current language "cargo tank" as written in the definition of .0926.

In (a)(2), line 9, what is an "account cargo tank"?

The term "trailer tank" is revised to "cargo tank" in line 9 for consistency. The adjective "account" preceding the term "cargo tank" indicates the status of the vessel having an account where it regularly supplies known destinations of the consumer product. For further information on account tanks, see EPA's CTG for States' development of RACT for Bulk Gasoline Plants, which states that "*most commonly, truck-trailer transports are owned by oil companies or commercial carriers; such vehicles are not devoted solely to bulk plant service. Bulk plants typically average two account trucks each. Account trucks average four compartments and a total capacity of 7,200 liters. Account trucks are almost always owned by the plant operators, even when the plant is owned by a refinery.*"

https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=9100ZDWS.txt

In (a)(3), why is the definition of "bulk gasoline terminal" different here than from the definition in .0926(a)(4)?

In context, the definitions are for the type of storage to which each rule applies. In .0926, the terminals are facilities that simply need to be described as part of the supply chain for the smaller bulk plants to which the rule applies. Rule 02D .0932 specifies requirements for the cargo tanks, which transport gasoline between the terminals themselves and potential final consumers, so the definition is intended to be precise

and therefore reflects the EPA language by including the specific phrasing "pipeline breakout station."

In (a)(8), line 27, the term "motor vehicle" is used without definition. I see you added that definition in Rule .0927, but it is limited in application to that Rule and doesn't apply here.

The definition in .0927 was requested by external stakeholders as it was a common and repeated question received each inspection cycle. The definition was added to .0927 to provide consistency and clarity for the regulated community. For the cargo tank owners and operators, there was not the same question or confusion.

In (c)(6), p.2, line 33, who is required to maintain the records?

The owner or operator. This has been clarified.

In (c)(6), line 34, who is required to make the records available?

The owner or operator. This has been clarified.

In (c)(6), line 34, define or delete "reasonable".

This has been deleted.

In (d)(2)(A), p.3, line 7, what is a "potential leak source"?

A leak source for a storage tank of any kind includes the designed openings of the container, but may also include valves, connectors, pumps, pressure relief devices, open-ended lines, and past repairs which are weak points of the container. These are easily identifiable and known among the users of vapor collection systems as it is required as part of their training to receive certification to handle hazardous materials (gasoline) as part of their training. Collecting the vapors from gasoline not only protects ambient air quality, but also prevents explosions so there are overlapping interests in limiting gasoline emissions.

In (d)(4), lines 20-22, where is the Director's authority to relax the monitoring requirements for some plants/terminals, and to increase the frequency of monitoring for others? The two statutes in your History Note explicitly give the "Commission" or the "Department" the authority to develop and implement rules.

The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. N.C.G.S. § 143-215.107 gives the Commission authority to "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" and gives the Department authority to implement those standards. N.C.G.S. § 143-215.66 further authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources. Here

those requirements authorize sources to implement alternative testing procedures if approved by the Director under circumstances described in the rule.

This rule is an approved variation of monitoring requirements incorporated into the North Carolina SIP. This language provides for a custom approach to focusing staff resources where it is most beneficial for protecting air quality. In practice, this rule rewards facilities upkeeping their facility and preventing emissions. In the EPA's Leak Detection and Repair Best Practices Guide, they state: Many regulations allow for less frequent monitoring (i.e. skip periods) when good performance (as defined in the applicable regulation) is demonstrated. Skip period is an alternative work practice found in some equipment leak regulations and usually applies only to valves and connectors. After a specified number of leak detection periods (e.g., monthly) during which the percentage of leaking components is below a certain value (e.g., 2% for NSPS facilities), a facility can monitor less frequently (e.g., quarterly) as long as the percentage of leaking components remains low. The facility must keep a record of the percentage of the component type found leaking during each leak detection period.

To the extent there is statutory authority for (d)(4), what does "less frequent monitoring" mean? How much less frequently? Similarly, what does it mean to increase the frequency of monitoring? How much more frequently?

This is an approved variation of monitoring requirements incorporated into the North Carolina SIP. The current rule provides for annual inspection of leaks and if less than 10 are found then the inspections may be more than a year apart without penalty and if there are over 20 leaks then the inspection would need to occur more frequently than once a year. As noted above, the EPA allows for less frequent monitoring (i.e. skip periods) when good performance (as defined in the applicable regulation) is demonstrated. Skip period is an alternative work practice found in some equipment leak regulations and usually applies only to valves and connectors. After a specified number of leak detection periods (e.g., monthly) during which the percentage of leaking components is below a certain value (e.g., 2% for NSPS facilities), a facility can monitor less frequently (e.g., quarterly) as long as the percentage of leaking components remains low. The facility must keep a record of the percentage of the component type found leaking during each leak detection period. The flexibility this provides is to allow for tailoring of a solution to the scale of the issue so it may be resolved with minimal burden to the facility and the regional office staff.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0961

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (c), p.2, line 13 and in (d), line 21, what is an "equivalent level of control"?

An "equivalent level of control" means a control strategy that achieves the same emission reductions as the requirements, determined on a case-by-case basis. The facility may provide another approach that achieves comparable emission reductions, and conditions for that approach are added to the facility's permit, as referenced in the rule language of (c) and (d).

In (c)(1)-(3), why does it say "by weight, as applied" in (1), and then "by weight, on-press (as-applied)" in the other items? What is the distinction, if any?

"By weight, as applied" refers to the amount of VOC in the fountain solution. "By weight, on-press (as-applied)" refers to the amount of VOC in the fountain solution that is actually used in the press for printing.

In (f), line 31, does "subject to this Rule" refer to (b)?

Yes, Paragraph (b) provides the applicability requirements for this Rule.

In (f), line 31, what is a "potential emission," and how does a press emit a "potential" emission? I know there is a definition for "potential emission" in 02Q, but I don't see anything incorporating that definition here.

"Potential emissions" is defined in 15A NCAC 02D .0901 as the quantity of pollutant that would be emitted at the maximum operating capacity of the unit, in this case the offset lithographic or letterpress process.

In (f)(1), please revise lines 32-33 for grammar.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

Revised (f)(1) to read; "An owner or operator of an individual web offset lithographic printing press dryer or letterpress-printing heatset press subject to this Rule that has potential emissions of 25 or more tons per year of volatile organic compounds shall:"

In (f)(1), is anything after "threshold" an actual requirement? This appears to be a suggestion.

The first part of the Subparagraph ("use an enforceable limitation…which can be achieved,") is specifying the requirement to keep emissions below 25 tons per year (tpy), and then introduces two options: 1) "using inks and coatings that contain less than 31.25 tons per year volatile organic compound (petroleum ink oil) where a 20% retention factor of petroleum ink oil applies;" or 2) "by using other methods established by permit conditions." The first option is the method already vetted and recommended by EPA in their Control Technology Guidelines (CTG) to meet the requirement of keeping emissions below 25 tpy (see page 14 of the EPA document linked below), and the second option allows for case-by-case determination of how emissions will be kept below 25 tpy, so long as permit conditions (i.e., enforceable limitations) are added to the facility's permit.

EPA Control Technique Guidelines (CTG) for Lithographic Letterpress Printing:
https://www3.epa.gov/airquality/ctg_act/200609_voc_epa453_r-06-002_litho_letterpress_printing.pdf

In (f)(2)(A)-(D), on p.3, how is the "potential" to emit determined? I know there is a definition for "potential emission" in 02Q, but I don't see anything incorporating that definition here.

"Potential emissions" is defined in 15A NCAC 02D .0901 as the quantity of pollutant that would be emitted at the maximum operating capacity of the unit, in this case the offset lithographic or letterpress process. This is a term used frequently by the EPA throughout federal regulations and well-understood by the regulated community.

In (h)(1) and (2), the Rule cites to 15 NCAC 02D .2602(h) for approval of alternative testing methods. Looking at that rule, deviations from testing procedures may be allowed by the Director under certain circumstances. Where is the Director's statutory authority to alter testing procedures prescribed by the CFR?

N.C.G.S. § 143-215.66 authorizes the Commission to adopt rules prescribing appropriate monitoring requirements for regulated sources, while N.C.G.S. § 143-215.3(a)(4) authorizes the Commission to delegate such of its powers it deems necessary to *inter alia* the Secretary or any other qualified employee of the Department. Here those requirements allow sources to implement alternative testing procedures approved by the Director. There is no federal rule requiring use of Method 24 for determining VOC content from these lithographic letterpress printing operations, or Methods 18, 25, or 25A for measuring VOC at control device inlets and outlets for the purposes of determining control efficiency. As explained in the response to the first comment for Rule 02D .0927, this is a VOC RACT Rule that is based on the EPA's CTG (as required by the CAA), which contains recommendations for various

methods of measurement, depending on the application. There may be instances where the specified methods are infeasible or not appropriate for a particular application and the applicant may demonstrate that an alternate method is equivalent or more appropriate pursuant to 15A NCAC 02D .2602. This Rule is EPA-approved into North Carolina's SIP for control of VOC emissions.

In (i), line 36, what is a "typical" operating condition?

All tests are performed during "typical" or normal operating conditions. This means that the same day-to-day production prior to the test is used during the test, to ensure that the results of the test are representative of routine operations. For example, typical operating conditions would not include times when maintenance is performed, when the emission source is starting up, control devices are not operating, or the facility is operating at a process rate lower than usual.

In (j), p.4, line 1, what is "RACT"?

"RACT" is an acronym for reasonably available control technology, which is defined and specified in 15A NCAC 02D .0901 as:

"Reasonably available control technology" also denoted as "RACT," means the lowest emission limit a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. It may require technology that has been applied to similar source categories.

This is a term developed by EPA and used throughout federal regulations.

In (j)(1), is there a defined difference between "heatset" and "coldset"?

"Heatset" printing is defined in Subparagraph (a)(4) as "*any operation in which heat is required to evaporate ink oils from the printing ink, excluding ultraviolet (UV) curing, electron beam curing, and infrared drying*." Typically in heatset printing, ink is dried by running the paper through an oven after the ink is applied. "Coldset" printing is the process by which the ink dries through evaporation and absorption into the paper. This term is used interchangeably with "non-heatset," which is defined in Subparagraph (a)(6). The regulated community understands these terms.

Further description of each can be found on page 15 EPA's CTG for lithographic letterpress printing: https://www3.epa.gov/airquality/ctg_act/200609_voc_epa453_r-06-002_litho_letterpress_printing.pdf

In (j)(3), line 16, what is a "carryover (capture) factor"?

"Carryover (capture) factor" estimates the percentage of VOC that is transferred from the automatic blanket wash and fountain solution to the printed paper and then emitted during the drying process.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

In (k), is there a contradiction? On line 30, you say that all cleaning materials "shall meet" one of the requirements in (1) or (2), but then state on line 34 that the press can use no more than 110 gallons of cleaning materials that do not meet the requirements of (k)(1) or (2). Please explain and revise.

Paragraph (k) was written based on the Control Technique Guidelines (CTG) for Offset Lithographic Printing and Letterpress Printing developed by the EPA. In the CTG, the EPA states "*…the cleaning control approaches recommended in this CTG include limitations on the VOC composite vapor pressure of cleaning materials and limits on the VOC content of cleaning materials, with an exclusion of 110 gallons per year of cleaning materials which meet neither the low VOC composite vapor pressure recommendation nor the lower VOC content recommendation, and work practices.*" Therefore, the rule was written to require either low VOC content or low VOC vapor pressure cleaning materials, but also allow the use of 110 gallons per year of cleaning materials that meet neither of the VOC requirements.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .0964

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (a)(8), I am not sure the definition for "HVLP" is grammatical. Please revise.

Added an "s" to "provide" to account for "system" being a third person singular noun. HVLP stands for "high-volume low-pressure".

In (a)(9), what exactly does the definition for "Miscellaneous industrial adhesives" mean? I'm oversimplifying, but boiled down it just means adhesives used in a variety of industrial settings. I'm not sure this is actually a definition, as it doesn't seem to set one kind of industrial adhesive aside from another. It seems like the term is better defined by the combination of (b) and (c) – adhesives that aren't covered by other 02D rules but which have VOC emissions greater that the threshold in .0902.

A punctuation correction was made to add clarity to this definition and align it with that in EPA's CTG. This definition was looked at and revised recently in 2020 and it was decided that it improved clarity for stakeholders.

In (a)(10), line 26, "area" should be plural.

Corrected.

In (d)(2), line 35, what is a "low" VOC adhesive? Is this term defined?

"Low" VOC means an adhesive containing no VOC or having a low VOC partial pressure, which can result from a low concentration of VOCs in solution/mixture or containing VOCs with a low vapor pressure. The exact content of the adhesive will vary based on the application. From the EPA's CTG upon which this rule is based:

"Lower VOC content adhesives, higher solids adhesives and waterborne adhesives, may be used to reduce VOC emissions by reducing or eliminating the organic solvent present in the adhesive." (p. 9)

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

"One pollution prevention measure is to substitute higher-solvent adhesives with adhesives containing little or no solvents. As previously discussed, these adhesives include waterborne adhesives, higher solids adhesives, and reactive adhesives. Manufacturers have developed and are continuing to develop waterborne and reactive formulations that replace conventional organic solvent-borne adhesives. These adhesives are generally available. Conversion to waterborne adhesives (for example) can lower VOC emissions greatly, and many miscellaneous industrial adhesive application processes are capable of converting to these adhesives. However, the currently available low-VOC adhesives or adhesives with no solvents do not meet the performance requirements of some industrial manufacturing applications and therefore are not viable options for these operations." (p. 10)

https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001JFP.txt

Also related to the above text is the definition of "low solvent coating" in 15A NCAC 02D .0901(2), which means: "*means a coating that contains a substantially lower amount of volatile organic compounds than conventional organic solvent borne coatings; it typically falls into one of three major groups of high solids, waterborne, or powder coatings.*"

In (e)(1), p.2, line 11, what does "averaging" mean? Arithmetic mean? Mode? Median?

Averaging refers to the arithmetic mean. Using a mode or median of data would not be an average, but rather one data point from the set. This would exclude much of the data and allow for the omission of important data points.

In (e)(2), line 14, what are the "exempt compounds"?

As stated in item (29) in 15A NCAC 02D .0901, compounds that are excluded from the definition of volatile organic compound are defined as "any compound that is listed under 40 CFR 51.100(s) as having been determined to have negligible photochemical reactivity."

In (f), line 15, I think you need the article "a" before "general adhesive application process".

Added.

It seems to me that Table 1 is actually 3 different tables. Would it be clearer for your regulated public to formally separate them?

Separated tables and updated references to the tables.

Are any of the processes listed in Table 1 an affected source under 40 CFR Part 63? For instance, indoor floor coverings could include carpeting, which is covered by 40 CFR 63.5740. If so, why do you have statutory authority to regulate them, in light of G.S. 143-215.107(a)(5)a.2.?

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

N.C.G.S. 143-215.107(a)(5)a. expressly applies only to the regulation of **toxic air pollutants** ("…rules adopted pursuant to this subdivision that control emissions of toxic air pollutants…"). This rule regulates VOC emissions as part of the DAQ's effort to meet the National Ambient Air Quality Standards (NAAQS) for ozone, a criteria pollutant. The 40 CFR Part 63 requirements regulate the emissions of hazardous air pollutants (HAPs). G.S. 143-215.107 allows the Commission to control air pollution commensurate with the established air quality standards for ozone by the EPA.

In (g), p.3, line 2, I think "processes" should be singular.

Corrected.

In (g), line 2, what is an "add on control"?

An add-on control is a device that reduces air pollutants before release into the atmosphere. Some types of air pollution control can involve altering a part of the process, such as a stripping device that removes VOCs from a waste stream and recycles them back to the process (i.e., product recovery), which leads to less pollution in the air stream. Alternatively, add-on control devices treat the air stream to capture and destroy or remove pollutants before release to the atmosphere. From EPA's CTG for this source category:

"*Two categories of add-on control devices can be used by miscellaneous industrial adhesive application facilities: combustion (thermal or catalytic oxidation) and recovery (adsorption and absorption). While many control devices can be used to reduce VOC emissions, the following summary covers those control devices known to be used with adhesive application processes: oxidation, adsorption, and absorption.*" (p. 11)

https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001JFP.txt

Although not applicable to this source category, this is confirmed by the definition in 40 CFR § 63.3176, "Add-on control device means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere." It gets added on after the process of emitting something in the air rather than changing the process itself. The regulated community understands this term.

In (h), line 8, what is a reactive adhesive?

According to both 40 CFR § 63.3981 and § 63.4591, "Reactive adhesive means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process." The regulated community understands this term.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .1403

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

This rule references the notice published by the Director in the North Carolina Register that is required by Rule .1402. Where is the authority for the Director to publish a notice in the Register?

The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to inter alia the Secretary or any other qualified employee of the Department. The Office of Administrative Hearings (OAH) is responsible for publishing the North Carolina Register (NCR), and the Director (via delegated authority from the EMC, if necessary) submits a request to the OAH for NCR publications. This serves to fulfill requirements for public notice of comment periods and hearings that are required by statute or regulation.

In (b)(2), line 22, what kind of permit application does the Rule refer to? There appear to be several different types of permits contemplated by the Clean Air Act, the CFR, and Article 21B of Chapter 143.

This would be either be a synthetic minor (02Q .0300) or Title V (02Q .0500) permit if potential NOx emissions are greater than 100 tons per year or may require a new source review (NSR) permit if source is in an area of nonattainment for ozone or exceeds 560 pounds per year during the ozone season. The rules to determine which type of permit application is needed are contained in 15A NCAC 02Q.

In (b)(2)(B)(iv), line 29, what is a "limitation"?

A limitation could be an emission limit, a fuel usage limit, or an operational limit. It depends on what the facility agrees to do in the permit.

In (b)(4)(A) and (B), lines 14 and 17, respectively, the Rule says that an owner or operator implementing a fuel switching program shall make all necessary modifications pursuant to Subparagraph (b)(2). Would implementing a fuel switching

program require physical modifications? Or would only a demonstration under (b)(1) be necessary? Same question for (c)(4)(A) and (B).

Yes, implementing a fuel switching program would likely require the physical modification of the burners used to combust the different fuel types and the piping or other infrastructure to be able to send the fuels to the burners. Typically, natural gas-fired burners generate less NOx emissions in comparison to coal-fired or oil-fired burners. If the unit is already physically capable of firing multiple fuels, the operational conditions in the permit may need to be modified for the seasonal fuel switching program. In any case, the facility would need to demonstrate they can meet the limitation set forth in the permit using the requirements in (b)(2) to assure compliance. For (b)(4)(B), the requirement should only reference the submittal of a permit application required in Part (b)(2)(A). This was changed in the text.

For (c)(4)(A), again fuel switching requires modification of the burners and fuel delivery infrastructure so the reference to (b)(2) is appropriate. Part (c)(4)(B) should only reference Part (b)(2)(A) for submittal of the permit. That change has been made to the rule text.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02D .1708

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

Throughout the Rule, there are provisions allowing the owner/operator to choose between complying with a State rule or a Federal regulation. Where there are both State and federal options on point, do the State rules "impose a more restrictive standard, limitation, or requirement than those imposed by federal law or rule"?

The State rules are not more restrictive than the federal regulations and do not allow the owner or operator to choose between complying with a State rule or federal regulation. The 02D .1700 rules implement the EPA's Emission Guidelines (EGs) under 40 CFR Part 60, Subpart Cf pursuant to Section 111(d) of the Clean Air Act (CAA). EPA's EGs are not standards that apply to facilities directly. 40 CFR Part 60 contains both New Source Performance Standards (NSPS) (which apply to new sources), and Emission Guidelines (EGs), which apply to existing sources of air pollution. The NSPS are standards that apply to facilities directly, whereas EGs are guidelines for States to develop standards of performance for existing sources. After EPA finalizes a new or revised EG, States must develop the standards of performance that meet EPA's guidelines in the EG (typically through rule development or individual permits), and then submit a CAA Section 111(d) State Plan to EPA that meets the requirements of EPA's implementing regulations under 40 CFR Part 60, Subpart B or Ba (as applicable for that EG) and describe how the State's standards meet EPA's guidelines under the EG. Therefore, the 02D .1700 rules cross reference EPA's EG for municipal solid waste (MSW) landfills under 40 CFR Part 60, Subpart Cf. Some of the provisions for MSW Landfills in EPA's EG contain different options for the facility to comply, which may be why it appears that 02D .1708 allows a facility to choose whether to comply with the State or federal rule. Rather, the State rule is simply cross referencing those options that are allowed under the federal regulation. Currently, North Carolina's CAA 111(d) State Plan for MSW Landfills (40 CFR Part 60, Subpart Cf) is under development.

*In (c), on line 15 the Rule refers to a NMOC "emission report" while on lines 17-18 it refers to a NMOC "emission **rate** report". Are these two different reports? That's not clear from context here.*

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

The correct term should be "emission rate report". The correct text was added to Line 15.

In (c)(1), line 19, who determines whether the report contains an annual or five year estimate? Is it up to the owner/operator of the landfill?

The requirements for the five-year estimate are provided in Paragraph (c)(3). This states that "if the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report." Otherwise, the facility will need to submit the annual report, which is expected to contain the annual NMOC emission rate.

In (d)(1)-(3), p.2, lines 4-7, what is a "description"? What specifically are you asking your regulated public to provide?

The DAQ is requesting a written representation of the collection and control system, alternatives, and how the plan conforms to specifications for active systems. This language aligns with 40 CFR 60.38f(d)(1)-(3). The description would need to contain sufficient information to demonstrate compliance with the specifications and requirements of the rule.

I think the way (e) is structured is unclear. As I read the two sentences together, an owner or operator only has to submit a revised design plan if (e)(1) or (2) applies. However, the first sentence merely says that an owner or operator "shall submit a revised design plan" containing the information from (d)(1)-(3). Consider revising so that it is clearer that the requirement only attaches if (e)(1) or (2) is met.

Paragraph (e) was added to Rule 02D .1708 during a recent rulemaking, effective July 1, 2021, and is an artifact of EPA revising the Emission Guidelines (EGs) for MSW Landfills under a new Subpart Cf. The language is intended to require an owner or operator of a landfill that submitted a design plan under the previous EG (40 CFR Part 60, Subpart Cc) or the previous NSPS (Subpart WWW, which applied to new facilities at the time) to submit a revised design plan by the dates specified in (e)(1) and (e)(2). The language of the rule has been revised to clarify the requirement and align with 40 CFR 60.38f(e).

In (f), what is a "closure report"? Is this detailed in another rule?

The requirements of a "closure report" are described in detail in 40 CFR 258.60 as referenced in the rule language, which aligns with 40 CFR 60.38f(f).Additionally, this term is well-understood by the regulated community subject to this rule.

40 CFR 258.60:
https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-258/subpart-F

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

In (h), for consistency, make sure each reference to the CFR is complete. Several references omit the "40 CFR" portion of the citation.

Added "40 CFR" to 3 citations in the text.

In (h), line 33, delete "the owner or operator".

The text "the owner or operator" has been removed.

In (l), p.3, line 8, and (m), line 13, the term "landfill" is used instead of "MSW landfill" elsewhere. Is this intentional?

No, the term "landfill" refers to "MSW Landfill". Added "MSW" to Paragraphs (l) and (m), as well as Paragraph (f).

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0102

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (c), line 12, is it the activity that would need a permit (or an exemption, here), or a source?

The exemption in Paragraph (c), line 12, applies to the activity. "Source" is defined in 02Q .0103. Various activities can occur at a particular source, or the "activity" could be the main operation of the source (e.g., the operation of an air conditioner system for comfort).

Also in (c), line 12, the phrasing seems a little odd – would an "activity" have an "owner or operator"?

Yes. Activity in this context refers to the most general description of a source for emissions which could be something expected like the general operation of a physical piece of process equipment, or just an occasional activity at a source, such as taking the cover off a vat of liquid mercury. This phrasing is familiar to stakeholders and utilized by the EPA in the same context.

With respect to (f), where is the Director's authority to require an owner/operator to register pursuant to Section 02D .0200? I looked at 02D .0202 and it says the registration is pursuant to 143-215.107(a)(4). While (a)(4) does appear to give authority to require registration, (a)(4) gives that authority to the Commission, not to the Director.

The Commission is empowered by N.C.G.S. § 143-215.3(a)(4) to delegate such of its powers it deems necessary to inter alia the Secretary or any other qualified employee of the Department.
Further, N.C.G.S. 143-215.106 specifies that the Department shall administer the air quality program of the State.

In (g)(6), p.2, line 35, capitalize "state" if referring only to the State of North Carolina.

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

This is corrected.

In (g)(13), p.3, line 7, do you mean to say the exception does not apply to flares and other combustion sources at solid waste landfills?

Yes, the exemption does not apply to flares and other combustion sources at solid waste landfills. Clarifying language has been added.

In (g)(14)(K), line 34, the Rule refers to "animal operations". Mostly for my own understanding, how are these subject to air quality permits?

The waste products of a large population of animals can result in concentrations of compounds with the potential to impact people living near largescale livestock facilities. Thus, the waste present at these facilities is considered an emissions source, which must be permitted unless specifically exempted in the rules. The pollutant of interest in this context is volatile organic compound (VOC) emissions, which is a listed National Ambient Air Quality Standard (NAAQS) pollutant.

In (h)(1)(C), p.4, line 13, what is "waste oil"?

In this context, waste oil is described in Subpart (1) as oil that the owner or operator generates, or used oil from do-it-yourself oil changers who generate used oil as household wastes.

In (h)(6), where is the statutory authority for allowing the Director to award exemptions?

N.C.G.S. § 143-215.108(a) prohibits activities that contravene or will be likely to contravene standards established pursuant to N.C.G.S. §§ 143-215.107 or 143-215.107D unless obtaining a permit issued pursuant to the EMC's authority. The EMC has adopted rules implementing this permitting program pursuant to *inter alia* N.C.G.S. § 143-215.3 and, as authorized by N.C.G.S. § 143-215.3(a)(4), has delegated authority to the Director to implement the program as provided in the rules. The exemptions listed in this rule have been determined to not contravene the established standards. Here the EMC has delegated authority to the Director, as authorized by N.C.G.S. § 143-215.3(a)(4) to determine that, upon adequate demonstration, certain activities do not contravene established standards and thus do not require a permit.

In addition, N.C.G.S. § 143-215.107(a)(4) and (5) authorize the EMC with the power (emphasis added):

*(4) To collect information or to require reporting from classes of sources which, **in the judgment** of the Environmental Management Commission, **may cause or contribute to air pollution**…*

*(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…*

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

Assuming the Director does have the authority to exempt people from permit requirements, what are the requirements of a "demonstration"? Is it in (i)?

The demonstration must show that the activity does not violate any applicable emission control standard. This may include the elements described in (i), which are required upon request for any exemption claimed under Paragraphs (d), (e), (g) or (h), but additional items may be necessary since the exemption is determined on a case-by-case basis.

Paragraph (i) is written poorly. Please reorganize so that it more clearly expresses the ideas here. For instance: "Upon request of the Director, the owner or operator of a facility or source seeking an exemption under Paragraphs (d), (e), (g), or (h) of this Rule shall submit emissions data, documentation of equipment type, or other supporting documents showing that the source is qualified for an exemption."

The paragraph is rewritten to address the issue of clarity with the wording.

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

REQUEST FOR CHANGES PURSUANT TO G.S. 150B-21.10

AGENCY: Environmental Management Commission

RULE CITATION: 15A NCAC 02Q .0706

DEADLINE FOR RECEIPT: FRIDAY, AUGUST 11, 2023.

***PLEASE NOTE:* This request may extend to 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 email the reviewing attorney to inquire concerning the staff recommendation.

In reviewing this Rule, the staff recommends the following changes be made:

In (a), line 5, what do you mean by "subject to a Section"?

This means the owner or operator's facility fits the criteria to be regulated by a Rule in 15A NCAC 02D, other than only 15A NCAC 02D .1100. The rule language has been revised slightly to specify "Rule" instead of "Section", since the facility would not need to be subject to an entire Section in 02D, but rather a rule.

In (a)(1), line 6, I'm just curious why it is necessary to add .0500 to (1), when it appears to be included already in (2). Does including .0500 permits in (1) have a substantive effect?

Including .0500 improves clarity of the rule applicability. Under Subparagraph (a)(1), the modification itself must require a permit, whereas under Subparagraph (a)(2), the modification must only occur at a facility that has a permit pursuant to 02Q .0500 (and emit a pollutant that is part of the facility's previous toxics modeling demonstration).

Is there a formatting issue on line 21? Should that be paragraph (d)?

Added in "(d)" and some clarifying language into Subparagraphs (d) and (e).

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

Brian Liebman
Commission Counsel
Date submitted to agency: August 4, 2023

15A NCAC 02D .0503 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0503 PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

(a) For the purpose of this Rule, the following definitions shall apply:

(1) "Functionally dependent" means that structures, buildings, or equipment are interconnected through common process streams, supply lines, flues, or stacks.

(2) "Indirect heat exchanger" means any equipment used for the alteration of the temperature of one fluid by the use of another fluid in which the two fluids are separated by an impervious surface such that there is no mixing of the two fluids.

(3) "Plant site" means any single or collection of structures, buildings, facilities, equipment, installations, or operations that:

(A) are located on one or more adjacent properties;

(B) are ~~in~~under common legal control; and

(C) are functionally dependent in their operations.

(b) The definition contained in Subparagraph (a)(3) of this Rule does not affect the calculation of the allowable emission rate of any indirect heat exchanger permitted prior to April 1, 1999.

(c) The emissions of particulate matter from the combustion of a fuel that are discharged from any indirect heat exchanger through a stack or chimney into the atmosphere shall not exceed:

Maximum Heat Input In Million Btu/Hour	Allowable Emission Limit For Particulate Matter In ~~In Lb/Million~~lb/Million Btu
Up to and Including 10	0.60
100	0.33
1,000	0.18
10,000 and Greater	0.10

For a heat input between any two consecutive heat inputs stated in the table set forth in this Paragraph, the allowable emissions of particulate matter shall be calculated by the equation $E= 1.090*Q^{-0.2594}$. "E" equals the allowable emission limit for particulate matter in lb/million Btu. "Q" equals the maximum heat input in million Btu/hour.

(d) This Rule applies to installations in which fuel is burned for the purpose of producing heat or power by indirect heat transfer. ~~Fuels include those such as coal, coke, lignite, peat, natural gas, and fuel oils, but exclude~~ For the purpose of this Rule, the term "fuels" includes all fuels that generate particulate matter emissions from indirect heat exchangers excluding wood and refuse not burned as a fuel. When any refuse, products, or by-products of a manufacturing process are burned as a fuel rather than refuse, or in conjunction with any fuel, this allowable emission limit shall apply.

(e) For the purpose of this Rule, the maximum heat input shall be the total heat content of all fuels which are burned in a fuel burning indirect heat exchanger, of which the combustion products are emitted through a stack or stacks. The sum of maximum heat input of all fuel burning indirect heat exchangers at a plant site which are in operation, under construction, or permitted pursuant to 15A NCAC 02Q, shall be considered as the total heat input for the purpose of determining the allowable emission limit for particulate matter for each fuel burning indirect heat exchanger. Fuel burning indirect heat exchangers constructed or permitted after February 1, 1983, shall not change the allowable emission limit of any other fuel burning indirect heat exchanger whose allowable emission limit has previously been set. The removal of a fuel burning indirect heat exchanger shall not change the allowable emission limit of any other fuel burning indirect heat exchanger whose allowable emission limit has previously been established. However, for any fuel burning indirect heat exchanger constructed after, or in conjunction with, the removal of another fuel burning indirect heat exchanger at the plant site, the maximum heat input of the removed fuel burning indirect heat exchanger shall no longer be considered in the determination of the allowable emission limit of any fuel burning indirect heat exchanger constructed after or in conjunction with the removal. For the purposes of this Paragraph, refuse not burned as a fuel and wood shall not be considered a fuel. For residential facilities or institutions, such as military and educational, whose primary fuel burning capacity is for comfort heat, only those fuel burning indirect heat exchangers located in the same power plant or building or otherwise physically interconnected, such as common flues, steam, or power distribution line, shall be used to determine the total heat input.

(f) The emission limit for fuel burning equipment that burns both wood and other fuels in combination, or for wood and other fuel burning equipment that is operated such that emissions are measured on a combined basis, shall be calculated by the equation Ec = [(EW)(Qw) + (Eo)(Qo)] /Qt.

(1) Ec = the emission limit for combination or combined emission source(s) in lb/million Btu.

(2) Ew = plant site emission limit for wood only as determined pursuant to 15A NCAC 02D .0504 in lb/million Btu.

(3) Eo = the plant site emission limit for other fuels only as determined by Paragraphs (a), (b) and (c) of this Rule in lb/million Btu.

(4) Qw = the actual wood heat input to the combination or combined emission source(s) in Btu/hr.

(5) Qo = the actual other fuels heat input to the combination or combined emission source(s) in Btu/hr.

(6) Qt = Qw + Qo and is the actual total heat input to combination or combined emission source(s) in Btu/hr.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. February 1, 1976;
Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the permanent rule is effective, whichever is sooner;
Amended Eff. April 1, 1999; July 1, 1994; August 1, 1991; June 1, 1985; February 1, 1983;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023

15A NCAC 02D .0506 is amended as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0506 PARTICULATES FROM HOT MIX ASPHALT PLANTS

(a) The allowable emission rate for particulate matter resulting from the operation of a hot mix asphalt plant that are discharged from any stack or chimney into the atmosphere shall not exceed the level calculated with the equation

$$E = 4.9445(P)^{0.4376}$$

calculated to three significant figures, for process rates less than 300 tons per hour, where "E" equals the maximum allowable emission rate for particulate matter in pounds per hour and "P" equals the process rate in tons per hour. The allowable emission rate shall be 60.0 pounds per hour for process rates equal to or greater than 300 tons per hour.

(b) Visible emissions from stacks or vents at a hot mix asphalt plant shall not exceed 20 percent opacity when averaged over a six-minute period.

(c) All hot mix asphalt batch plants shall be equipped with a scavenger process dust control system for the drying, conveying, classifying, and mixing equipment. The scavenger process dust control system shall exhaust through a stack or vent and shall be operated and maintained in such a manner as to comply with Paragraphs (a) and (b) of this Rule.

(d) Fugitive non-process dust emissions shall be controlled by 15A NCAC 02D .0540.

(e) Fugitive emissions for sources at a hot mix asphalt plant not covered by Paragraphs (a) through (d) of this Rule shall not exceed 20 percent opacity averaged over six minutes.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. February 1, 1976;
Amended Eff. August 1, 2004; July 1, 1998; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0532 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0532 SOURCES CONTRIBUTING TO AN AMBIENT VIOLATION

(a) This Rule applies to new major stationary sources and major modifications to which 15A NCAC 02D .0531 does not apply and which would contribute to a violation of a national ambient air quality ~~standard~~ standard, but which would not cause a new violation.

(b) For the purpose of this Rule the definitions contained in Section II.A. of Appendix S of 40 CFR Part 51 shall apply.

(c) The Rule is not applicable to:

(1) emission of ~~pollutants for which the area in which the~~ a pollutant from a new or modified source ~~is~~ located ~~is~~ in an area designated as ~~nonattainment;~~ nonattainment for that pollutant in 40 CFR 81.334:

(2) emission of pollutants for which the source or modification is not major;

(3) emission of pollutants other than sulfur dioxide, PM2.5, nitrogen oxides, ~~and~~ carbon ~~monoxide;~~ monoxide, and PM10;

(4) a new or modified source whose impact will not increase more than:

(A) 1.0 $\mu g/m^3$ of SO_2 on an annual basis;

(B) 5 $\mu g/m^3$ of SO_2 on a 24-hour basis;

(C) 25 $\mu g/m^3$ of SO_2 on a 3-hour basis;

(D) 0.3 $\mu g/m^3$ of PM2.5 on an annual basis;

(E) 1.2 $\mu g/m^3$ of PM2.5 on a 24-hour basis;

(F) 1.0 $\mu g/m^3$ of NO_2 on an annual basis;

(G) 0.5 mg/m^3 of carbon monoxide on an 8-hour basis;

(H) 2 mg/m^3 of carbon monoxide on a one-hour basis;

(I) 1.0 $\mu g/m^3$ of PM10 on an annual basis; or

(J) 5 $\mu g/m^3$ of PM10 on a 24-hour basis

at any locality that does not meet a national ambient air quality standard;

(5) sources which are not major unless secondary emissions are included in calculating the potential to emit;

(6) sources which are exempted by the provision in Section II.F. of Appendix S of 40 CFR Part 51;

(7) temporary emission sources which will be relocated within two years; and

(8) emissions resulting from the construction phase of the source.

(d) 15A NCAC 02Q .0102 is not applicable to any source to which this Rule applies. The owner or operator of the source shall apply for and receive a permit as required in 15A NCAC 02Q .0300 or .0500.

(e) To issue a permit to a new or modified source to which this Rule applies, the Director shall determine that the source will meet the following conditions:

(1) The sources will emit the nonattainment pollutant at a rate no more than the lowest achievable emission rate;

(2) The owner or operator of the proposed new or modified source has demonstrated that all major stationary sources in the State that are owned or operated by this ~~person (or~~ person, or any entity controlling, controlled by, or under common control with this ~~person)~~ person, are subject to emission limitations and are in compliance, or on a schedule for compliance which is federally enforceable or contained in a court decree, with all applicable emission limitations and standards of this Subchapter which EPA has authority to approve as elements of the North Carolina State Implementation Plan for Air Quality; and

(3) The source will satisfy one of the following conditions:

(A) The source will comply with 15A NCAC 02D .0531(i) when the source is evaluated as if it were in the nonattainment area; or

(B) The source will have an air quality offset, i.e., the applicant will have caused an air quality improvement in the locality where the national ambient air quality standard is not met by causing reductions in impacts of other sources greater than any additional impact caused by the source for which the application is being made. The emissions reductions creating the air quality offset shall be placed as a condition in the permit for the source reducing emissions. The requirements of this Part may be ~~partially~~ waived for the following sources, as specified in Section IV.B of Appendix S to 40 CFR Part 51, incorporated as specified in Paragraph (g) of this Rule: ~~if the source is a resource recovery facility burning municipal solid waste, the source must switch fuels due to lack of adequate fuel supplies, or the source is required to be modified as a result of EPA regulations and no exemption from such regulations is available and if:~~

~~(i) the permit applicant demonstrates that it made its best efforts to obtain sufficient air quality offsets to comply with this Part;~~

~~(ii) the applicant has secured all available air quality offsets; and~~

~~(iii) the applicant will continue to seek the necessary air quality offsets and apply them when they become available.~~

(i) resource recovery facilities burning municipal solid waste; and

(ii) sources that must switch fuels due to lack of adequate fuel supplies, or sources that are required to be modified as a result of EPA regulations where no exemption from such regulations is available to the source, if:

(I) the permit applicant demonstrates that it made its best efforts to obtain sufficient air quality offsets to comply with this Part;

(II) the applicant has secured all available air quality offsets; and

(III) the applicant will continue to seek the necessary air quality offsets and apply them when they become available.

(f) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforceable limitation established after August 7, 1980, on the capacity of the

source or modification to emit a pollutant, such as a restriction on hours of operation, then the provisions of this Rule shall apply to the source or modification as though construction had not yet begun on the source or modification.

(g) The version of the Code of Federal Regulations incorporated in this Rule is that as of July 1, 2019, at https://www.govinfo.gov/content/pkg/CFR-2019-title40-vol2/pdf/CFR-2019-title40-vol2-part51-appS.pdf and does not include any subsequent amendments or editions to the referenced material. The publication may be accessed free of charge.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.108(b); ~~150B-21.6;~~*
Eff. June 1, 1981;
Temporary Amendment Eff. March 8, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Amended Eff. July 1, 1994; December 1, 1993; December 1, 1992; October 1, 1989;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0614 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0614 COMPLIANCE ASSURANCE MONITORING

(a) General Applicability. Except as set forth in Paragraph (b) of this Rule, the requirements of this ~~Paragraph~~ Rule shall apply to a pollutant-specific emissions unit at a facility required to obtain a permit pursuant to 15A NCAC 02Q .0500 if the unit:

(1) is subject to an emission limitation or standard for the applicable regulated air pollutant, or a surrogate thereof, other than an emission limitation or standard that is exempt pursuant to Subparagraph (b)(1) of this Rule;

(2) uses a control device to achieve compliance with any such emission limitation or standard; and

(3) has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. For purposes of this ~~Subparagraph,~~ Rule, "potential pre-control device emissions" means the same as "potential to emit" as defined in ~~15A NCAC 02Q .0103,~~ 40 CFR 64.1, except that emission reductions achieved by the applicable control device shall not be taken into account.

(b) The following exemptions to this Rule shall apply.

(1) Exempt emission limitations or standards. The requirements of this Rule shall not apply to any of the following emission limitations or standards:

(A) emission limitations or standards proposed by the Administrator of the Environmental Protection Agency after November 15, 1990, pursuant to section 111 or 112 of the federal Clean Air Act;

(B) stratospheric ozone protection requirements pursuant to Title VI of the federal Clean Air Act;

(C) Acid Rain Program requirements pursuant to sections 404, 405, 406, 407(a), 407(b), or 410 of the federal Clean Air Act;

(D) emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved under the rules of Subchapters 02D and 02Q of this Chapter and that are incorporated in a permit issued pursuant to 15A NCAC 02Q .0500;

(E) an emissions cap that is approved pursuant to the rules of Subchapters 02D and 02Q of this Chapter and incorporated in a permit issued pursuant to 15A NCAC 02Q .0500; or

(F) emission limitations or standards for which a permit issued pursuant to 15A NCAC 02Q .0500 specifies a continuous compliance determination method, as defined in 40 CFR 64.1. This exemption shall not apply if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control ~~device, such as~~ device. Note: for example, a surface coating line controlled by an incinerator for which continuous compliance is

determined by calculating emissions on the basis of coating records and an assumed control device efficiency factor based on an initial performance test. In this example, 15A NCAC 02D .0614 would apply to the control device and capture system, but not to the remaining elements of the coating line, such as raw material usage.

(2) Exemption for backup utility power emissions units. The requirements of this Rule shall not apply to a utility unit, as defined in 40 CFR 72.2, that is municipally-owned if the owner or operator provides documentation in a permit application submitted pursuant to 15A NCAC 02Q .0500 that:

(A) the utility unit is exempt from all monitoring requirements in 40 CFR Part 75, including the appendices thereto;

(B) the utility unit is operated for the sole purpose of providing electricity during periods of peak electrical demand or emergency situations and will be operated consistent with that purpose throughout the permit term. The owner or operator shall provide historical operating data and relevant contractual obligations to document that this criterion is satisfied; and

(C) the actual emissions from the utility unit, based on the average annual emissions over the last three calendar years of operation, or such shorter time period that is available for units with fewer than three years of operation, are less than 50 tons per year and are expected to remain so.

(c) For the purposes of this Rule, the definitions in 40 CFR 64.1 shall apply with the following exceptions:

(1) "Applicable requirement" and "regulated air pollutant" shall have the same definition as in 15A NCAC 02Q .0103.

(2) "Part 70 or 71 permit application" means an application, or any supplement to a previously submitted application, submitted by the owner or operator to obtain a permit under 15A NCAC 02Q .0500.

(3) "Part 70 or 71 permit" means a permit issued under 15A NCAC 02Q .0500.

(4) "Permitting authority" means the Division of Air Quality.

(d) The owner or operator subject to the requirements of this rule shall comply with these requirements:

(1) 40 CFR 64.3, Monitoring Design Criteria;

(2) 40 CFR 64.4, Submittal Requirements;

(3) 40 CFR 64.5, Deadlines for Submittals;

(4) 40 CFR 64.7, Operation of Approved Monitoring; and

(5) 40 CFR 64.9, Reporting and Recordkeeping Requirements.

(e) The Division shall follow the procedures and requirements in 40 CFR Part 64.6, Approval of Monitoring, in reviewing and approving or disapproving monitoring plans and programs submitted under this Rule.

(f) Based on the result of a determination made pursuant to 40 CFR 64.7(d)(2), the Director may require the owner or operator to develop and implement a quality improvement plan. If a quality improvement plan is required, the

quality improvement plan shall be developed and implemented according to the procedures and requirements of 40 CFR 64.8, Quality Improvement Plan (QIP) Requirements.

History Note: *Authority G.S. 143-215.3(a)(3); 143-215.65; 143-215.66; 143-215.107(a)(4); 143-215.107(a)(10);*
Eff. April 1, 1999;
Amended Eff. January 1, 2009;
Readopted Eff. November 1, ~~2019.~~2019;
Amended Eff. November 1, 2023.

15A NCAC 02D .0918 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0918 CAN COATING

(a) For the purpose of this Rule, the following definitions shall apply:

(1) "End sealing compound" means a synthetic rubber compound that is coated onto can ends and functions as a gasket when the end is assembled on the can.

(2) "Exterior base coating" means a coating applied to the exterior of a can to provide exterior protection to the metal and to provide background for the lithographic or printing operation.

(3) "Interior base coating" means a coating applied by roller coater or spray to the interior of a can to provide a protective lining between the can metal and product.

(4) "Interior body spray" means a coating sprayed on the interior of the can body to provide a protective film between the product and the can.

(5) "Overvarnish" means a coating applied directly over ink to reduce the coefficient of friction, to provide gloss, and to protect the finish against abrasion and corrosion.

(6) "Three-piece can side-seam spray" means a coating sprayed on the exterior and interior of a welded, cemented, or soldered seam to protect the exposed metal.

(7) "Two-piece can exterior end coating" means a coating applied by roller coating or spraying to the exterior end of a can to provide protection to the metal.

(b) This Rule applies to volatile organic compound emissions from coating applicators and ovens of sheet, can, or end coating lines involved in sheet exterior and interior basecoat and overvarnish; two-piece can interior body spray; two-piece spray or roll coat can exterior; and three-piece can side-seam spray and end sealing compound operations.

(c) Unless the exception in Paragraph (d) of this Rule applies, emissions of volatile organic compounds from any can coating line subject to this Rule shall not exceed:

(1) 4.5 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from sheet exterior and interior basecoat and overvarnish or two-piece can exterior basecoat and overvarnish operations;

(2) 9.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from two and three-piece can interior body spray and two-piece spray or roll coat can exterior end operations;

(3) 21.8 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator ~~from a three-piece applicator from a three-piece can side-seam spray operations;~~from either a three piece applicator or a three piece can side seam spray [~~operations;~~]operation; or

(4) 7.4 pounds of volatile organic compounds per gallon of solids delivered to the coating applicator from end sealing compound operations.

(d) Any source that has controlled emissions pursuant to 15A NCAC 02D .0518(e) prior to July 1, 2000 and that has installed air pollution control equipment in accordance with an air quality permit pursuant to 15A NCAC 02Q .0300 or .0500 in order to comply with this Rule before December 1, 1989 may comply with the limits contained in this

Paragraph instead of those contained in Paragraph (c) of this Rule. Emissions of volatile organic compounds from any can coating line subject to this ~~Rule~~Paragraph shall not exceed:

(1) 2.8 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from sheet exterior and interior basecoat and overvarnish or two-piece can exterior basecoat and overvarnish operations;

(2) 4.2 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from two and three-piece can interior body spray and two-piece can spray or roll coat exterior end operations;

(3) 5.5 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from a three-piece applicator from a three-piece can side-seam spray operations; or

(4) 3.7 pounds of volatile organic compounds per gallon of coating, excluding water and exempt compounds, delivered to the coating applicator from end sealing compound operations.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; July 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0926 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0926 BULK GASOLINE PLANTS

(a) For the purpose of this Rule, the following definitions apply:

(1) "Average daily throughput" means annual throughput of gasoline divided by 312 days per year.

(2) "Bottom filling" means the filling of a cargo tank or stationary storage tank through an opening flush with the tank bottom.

(3) "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline and that typically receives gasoline from bulk terminals by cargo tank transport, stores it in tanks, and subsequently dispenses it via account cargo tanks to farms, businesses, and service stations.

(4) "Bulk gasoline terminal" means a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of greater than or equal to 20,000 gallons of gasoline.

(5) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(6) "Gasoline" means any petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(7) "Incoming vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading cargo tank and a receiving stationary storage tank such that vapors displaced from the receiving stationary storage tank are transferred to the cargo tank being unloaded.

(8) "Outgoing vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading stationary storage tank and a receiving cargo tank such that vapors displaced from the receiving cargo tank are transferred to the stationary storage tank being unloaded.

(9) "Splash filling" means the filling of a cargo tank or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

(10) "Submerged filling" means the filling of a cargo tank or stationary tank through a pipe or hose whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or whose discharge opening is entirely submerged when the liquid level is six inches above the bottom of the tank.

(b) This Rule applies to the unloading, loading, and storage facilities of all bulk gasoline plants, and of all cargo tanks delivering or receiving gasoline at bulk gasoline plants except stationary storage tanks with capacities less than 528 gallons.

(c) The owner or operator of a bulk gasoline plant shall not transfer gasoline to ~~any~~ a stationary storage ~~tanks~~ tank unless the unloading cargo tank and the receiving stationary storage tank are equipped with an incoming vapor balance system as described in Paragraph (i) of this Rule and the receiving stationary storage tank is equipped with a fill line whose discharge opening is flush with the bottom of the tank.

(d) The owner or operator of a bulk gasoline plant with an average daily gasoline throughput of 4,000 gallons or more shall not load a cargo tank at such plant unless the unloading stationary storage tank and the receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling.

(e) The owner or operator of a bulk gasoline plant with an average daily throughput of more than 2,500 gallons but less than 4,000 gallons located in an area with a housing density exceeding the limits in this Paragraph shall not load any cargo tank at such bulk gasoline plant unless the unloading stationary storage tank and receiving cargo tank are equipped with an outgoing vapor balance system as described in Paragraph (i) of this Rule and the receiving cargo tank is equipped for bottom filling. In the counties of Alamance, Buncombe, Cabarrus, Catawba, Cumberland, Davidson, Durham, Forsyth, Gaston, Guilford, Mecklenburg, New Hanover, Orange, Rowan, and Wake, the specified limit on housing density is 50 residences in a square one mile on a side with the square centered on the loading rack at the bulk gasoline plant and with one side oriented in a true North-South direction. In all other counties the specified limit on housing density is 100 residences per square mile. The housing density shall be determined by counting the number of residences using aerial photographs or other methods approved by the Director to provide equivalent accuracy.

(f) The owner or operator of a bulk gasoline plant not subject to the outgoing vapor balance system requirements of Paragraph (d) or (e) of this Rule shall not load cargo tanks at such plants unless:

(1) equipment is available and used at the bulk gasoline plant to provide for submerged filling of each cargo tank; or

(2) each receiving cargo tank is equipped for bottom filling.

(g) For gasoline bulk plants located in a nonattainment area for ozone, the owner or operator shall continue to comply with Paragraph (d) or (e) of this Rule even if the average daily throughput falls below the applicable threshold if ever the facility throughput triggered compliance.

(h) The owner or operator of a bulk gasoline plant shall ensure a cargo tank that is required to be equipped with a vapor balance system pursuant to Paragraphs (c), (d), or (e) of this Rule shall not transfer gasoline between the cargo tank and the stationary storage tank unless:

(1) the vapor balance system is in good working order and is connected and operating;

(2) cargo tank hatches are closed at all times during loading and unloading operations; and

(3) the cargo tank's pressure/vacuum relief valves, hatch covers, and the cargo tank's and storage tank's associated vapor and liquid lines are vapor tight during loading or unloading.

(i) Vapor balance systems required under Paragraphs (c), (d), and (e) of this Rule shall consist of the following major components:

(1) a vapor space connection on the stationary storage tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material;

(2) a connecting pipe or hose equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material; and

(3) a vapor space connection on the cargo tank equipped with fittings that are vapor tight and will be automatically and immediately closed upon disconnection to prevent release of volatile organic material.

(j) The owner or operator of a bulk gasoline plant shall paint all tanks used for gasoline storage white or silver.

(k) The pressure relief valves on cargo tanks loading or unloading at bulk gasoline plants shall be set to release at the highest possible pressure in accordance with State or local fire codes or the National Fire Prevention Association Guidelines. The pressure relief valves on stationary storage tanks shall be set at 0.5 psi for storage tanks placed in service on or after November 1, 1992, and 0.25 psi for storage tanks existing before November 1, 1992.

(l) No owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation.

(m) The owner or operator of a bulk gasoline plant shall observe loading and unloading operations and shall discontinue the transfer of gasoline:

(1) if any liquid leaks are observed; or

(2) if any vapor leaks are observed where a vapor balance system is required under Paragraphs (c), (d), or (e) of this Rule.

(n) The owner or operator of a bulk gasoline plant shall not load, or allow to be loaded, gasoline into any cargo tank unless the cargo tank has been certified leak tight in accordance with 15A NCAC 02D ~~.0932, .0960, and .2615.~~.0932.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; May 1, 1993; March 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0927 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0927 BULK GASOLINE TERMINALS

(a) For the purpose of this Rule, the following definitions apply:

(1) "Bulk gasoline terminal" means:

(A) a pipeline breakout station of an interstate oil pipeline facility; or

(B) a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of more than 20,000 gallons of gasoline.

(2) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(3) "Contact deck" means a deck in an internal floating roof tank that rises and falls with the liquid level and floats in direct contact with the liquid surface.

(4) "Degassing" means the process by which a tank's interior vapor space is decreased to below the lower explosive limit for the purpose of cleaning, inspection, or repair.

(5) "Gasoline" means a petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(6) "Leak" means a crack or hole letting petroleum product vapor or liquid escape that is identifiable through sight, sound, smell, an explosimeter, or the use of a meter that measures volatile organic compounds. When an explosimeter or meter is used to detect a leak, a leak is a measurement that is equal to or greater than 100 percent of the lower explosive limit, as detected by a combustible gas detector using the test procedure described in Appendix B of EPA-450/2-78-051. This test procedure is incorporated by reference, including any subsequent amendments and editions. A copy of this test procedure may be obtained free of charge at https://nepis.epa.gov/Exe/ZyPDF.cgi/2000M9RD.PDF?Dockey=2000M9RD.PDF.

(7) "Liquid balancing" means a process used to degas floating roof gasoline storage tanks with a liquid whose vapor pressure is below 1.52 psi. This is done by removing as much gasoline as possible without landing the roof on its internal supports, pumping in the replacement fluid, allowing mixing, ~~remove~~ removing as much mixture as possible without landing the roof, and repeating these steps until the vapor pressure of the mixture is below 1.52 psi.

(8) "Liquid displacement" means a process by which gasoline ~~vapors,~~vapors remaining in an empty ~~tank,~~tank are displaced by a liquid with a vapor pressure below 1.52 psi.

(9) "Pipeline breakout station" means a facility along a pipeline containing storage tanks used to:

(A) relieve surges in a hazardous liquid pipeline system; or

(B) receive and store hazardous liquids transported by pipeline for reinjection and continued transport by pipeline.

(b) This Rule applies to bulk gasoline terminals and the appurtenant equipment necessary to load the cargo tank compartments.

(c) Gasoline shall not be loaded into any cargo tank from any bulk gasoline terminal unless:

(1) the bulk gasoline terminal is equipped with a vapor control system that prevents the emissions of volatile organic compounds from exceeding 35 milligrams per liter. The owner or operator shall obtain from the manufacturer and maintain in the cargo tank's records a pre-installation certification stating the vapor control efficiency of the system in use;

(2) displaced vapors and gases are vented only to the vapor control system or to a flare;

(3) a means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and

(4) all loading and vapor lines are equipped with fittings that make vapor-tight connections and that are automatically and immediately closed upon disconnection.

(d) Sources regulated by this Rule shall not:

(1) allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation; or

(2) allow the pressure in the vapor collection system to exceed the cargo tank pressure relief settings.

(e) The owner or operator of a bulk gasoline terminal shall paint all tanks used for gasoline storage white or silver.

(f) The owner or operator of a bulk gasoline terminal shall install on each external floating roof tank with an inside diameter of 100 feet or less used to store gasoline a self-supporting roof, such as a geodesic dome.

(g) The following equipment shall be required on all tanks storing gasoline at a bulk gasoline terminal:

(1) rim-mounted secondary seals on all external and internal floating roof tanks;

(2) gaskets on deck fittings; and

(3) floats in the slotted guide poles with a gasket around the cover of the poles.

(h) Decks shall be required on all above ground tanks with a capacity greater than 19,800 gallons storing gasoline at a bulk gasoline terminal. All decks installed after June 30, 1998 shall comply with the following requirements:

(1) deck seams shall be welded, bolted, or riveted; and

(2) seams on bolted contact decks and on riveted contact decks shall be gasketed.

(i) If, upon facility or operational modification of a bulk gasoline terminal that existed before December 1, 1992, an increase in benzene emissions results such that:

(1) emissions of volatile organic compounds increase by more than 25 tons cumulative at any time during the five years following modifications; and

(2) annual emissions of benzene from the cluster where the bulk gasoline terminal is located (including the pipeline and marketing terminals served by the pipeline) exceed benzene emissions from that cluster based upon calendar year 1991 gasoline throughput and application of the requirements of this Subchapter,

then, the annual increase in benzene emissions due to the modification shall be offset within the cluster by reduction in benzene emissions beyond that otherwise achieved from compliance with this Rule, in the ratio of at least 1.3 to 1.

(j) To qualify for exemption from the requirements under Paragraphs (e) through (i) of this Rule, the ~~The~~ owner or operators of a bulk gasoline terminal that received an air quality permit before December 1, 1992 to emit toxic air pollutants under 15A NCAC 02Q .0700 to comply with 15A NCAC 02D .1100 shall continue to follow all terms and conditions of the permit issued under 15A NCAC 02Q .0700 and to bring the terminal into compliance with 15A NCAC 02D .1100 according to the terms and conditions of the permit, and shall ~~in which case the bulk gasoline terminal shall continue to need a~~ maintain this permit to emit toxic air ~~pollutants~~ pollutants. ~~and shall be exempted from Paragraphs (e) through (i) of this Rule.~~

(k) The owner or operator of a bulk gasoline terminal shall not load, or allow to be loaded, gasoline into any cargo tank unless the cargo tank has been certified leak tight according to 15A NCAC 02D ~~.0932, .0960, and .2615.~~.0932.

(l) The owner or operator of a bulk gasoline terminal shall have on file at the terminal a copy of the certification test conducted according to 15A NCAC 02D .0932 for each gasoline cargo tank loaded at the terminal.

(m) Emissions of gasoline from degassing of external or internal floating roof tanks at a bulk gasoline terminal shall be collected and controlled by at least 90 percent by weight. Liquid balancing shall not be used to degas gasoline storage tanks at bulk gasoline terminals. Bulk gasoline storage tanks containing not more than 138 gallons of liquid gasoline or the equivalent of gasoline vapor and gasoline liquid are exempted from the degassing requirements if gasoline vapors are vented for at least 24 hours. Documentation of degassing external or internal floating roof tanks shall be made according to 15A NCAC 02D .0903.

(n) ~~According to~~ In accordance with 15A NCAC 02D .0903, the owner or operator of a bulk gasoline terminal shall visually inspect the following for leaks each day that the terminal is both manned and open for business:

(1) the vapor collection system;

(2) the vapor control system; and

(3) each lane of the loading rack while a gasoline cargo tank is being loaded.

If no leaks are found, the owner or operator shall record that no leaks were found. If a leak is found, the owner or operator shall record the information specified in Paragraph (p) of this Rule. The owner or operator shall repair all leaks found according to Paragraph (q) of this Rule.

(o) The owner or operator of a bulk gasoline terminal shall inspect weekly for leaks:

(1) the vapor collection system;

(2) the vapor control system; and

(3) each lane of the loading rack while a gasoline cargo tank is being loaded.

The weekly inspection shall be done using sight, sound, or smell; a meter used to measure volatile organic compounds; or an explosimeter. An inspection using either a meter used to measure volatile organic compounds or an explosimeter shall be conducted every month. If no leaks are found, the owner or operator shall record the date that the inspection was done and that no leaks were found. If a leak is found, the owner or operator shall record the information specified in Paragraph (p) of this Rule. The owner or operator shall repair all leaks found according to Paragraph (q) of this Rule.

(p) For each leak found under Paragraph (n) or (o) of this Rule, the owner or operator of a bulk gasoline terminal shall record:

(1) the date of the inspection;

(2) the findings detailing the location, nature, and severity of each leak;

(3) the corrective action taken;

(4) the date when corrective action was completed; and

(5) any other information that the terminal deems necessary to demonstrate compliance.

(q) The owner or operator of a bulk gasoline terminal shall repair all leaks as follows:

(1) The vapor collection hose that connects to the cargo tank shall be repaired or replaced before another cargo tank is loaded at that rack after a leak has been detected originating with the terminal's equipment rather than from the gasoline cargo tank.

(2) All other leaks shall be repaired as expeditiously as possible but no later than 15 days from their detection. If more than 15 days are required to make the repair, the reasons that the repair cannot be made shall be documented, and the leaking equipment shall not be used after the fifteenth day from when the leak detection was found until the repair is made.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. January 1, 2007; April 1, 2003; August 1, 2002; July 1, 1998; July 1, 1996; July 1, 1994; December 1, 1992; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0928 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0928 GASOLINE SERVICE STATIONS STAGE I

(a) Definitions. For the purpose of this Rule, the following definitions apply:

(1) "Coaxial vapor recovery system" means the delivery of the gasoline and recovery of vapors occurring through a single coaxial fill tube, which is a tube within a tube. Gasoline is delivered through the inner tube, and vapor is recovered through the annular space between the walls of the inner tube and outer tube.

(2) "Delivery vessel" means cargo tanks used for the transport of gasoline from sources ~~or~~of supply to stationary storage tanks of gasoline dispensing facilities.

(3) "Dual point vapor recovery system" means the delivery of the product to the stationary storage tank and the recovery of vapors from the stationary storage tank occurring through two separate openings in the storage tank and two separate hoses between the cargo tank and the stationary storage tank.

(4) "Gasoline" means a petroleum distillate having a Reid vapor pressure of four psi or greater.

(5) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

(6) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.

(7) "Line" means any pipe suitable for transferring gasoline.

(8) "Motor Vehicle" means every vehicle which is self-propelled and every vehicle designed to run upon the highways which is pulled by a self-propelled [~~vehicle~~]vehicle. This term shall not ~~including~~ include mopeds or electric assisted bicycles in accordance with N.C. Gen. Stat. 20-4.01.

~~(8)~~(9) "Operator" means any person who leases, operates, controls, or supervises a facility at which gasoline is dispensed.

~~(9)~~(10) "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.

~~(10)~~(11) "Poppeted vapor recovery adaptor" means a vapor recovery adaptor that automatically and immediately closes itself when the vapor return line is disconnected and maintains a tight seal when the vapor return line is not connected.

~~(11)~~(12) "Stationary storage tank" means a gasoline storage container that is a permanent fixture.

~~(12)~~(13) "Submerged fill pipe" means any fill pipe with a discharge opening that is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid, or that is entirely submerged when the level of the liquid is:

(A) six inches above the bottom of the tank if the tank does not have a vapor recovery adaptor; or

(B) 12 inches above the bottom of the tank if the tank has a vapor recovery adaptor. If the opening of the submerged fill pipe is cut at a slant, the distance is measured from the top of the slanted cut to the bottom of the tank.

~~(13)~~(14) "Throughput" means the amount of gasoline dispensed at a facility during a calendar month after November 15, 1990.

(b) Applicability. This Rule applies to all gasoline dispensing facilities and gasoline service stations, and to delivery vessels delivering gasoline to a gasoline dispensing facility or gasoline service station.

(c) Exemptions. This Rule does not apply to:

(1) transfers made to storage tanks at gasoline dispensing facilities or gasoline service stations equipped with floating roofs or their equivalent;

(2) stationary tanks with a capacity of not more than 2,000 gallons that are in place before July 1, 1979, if the tanks are equipped with a permanent or portable submerged fill pipe;

(3) stationary storage tanks with a capacity of not more than 550 gallons that are installed after June 30, 1979, if tanks are equipped with a permanent or portable submerged fill pipe;

(4) stationary storage tanks with a capacity of not more than 2,000 gallons located on a farm or a residence and used to store gasoline for farm equipment or residential use if gasoline is delivered to the tank through a permanent or portable submerged fill pipe. This exemption does not apply in ozone non-attainment areas;

(5) stationary storage tanks at a gasoline dispensing facility or gasoline service station where the combined annual throughput of gasoline at the facility or station does not exceed 50,000 gallons, if the tanks are permanently equipped with submerged fill pipes; or

(6) any tanks used exclusively to test the fuel dispensing meters.

(d) With exceptions stated in Paragraph (c) of this Rule, gasoline shall not be transferred from any delivery vessel into any stationary storage tank unless:

(1) the tank is equipped with a submerged fill pipe, and the vapors displaced from the storage tank during filling are controlled by a vapor control system as described in Paragraph (e) of this Rule;

(2) the vapor control system is in good working order and is connected and operating with a vapor tight connection;

(3) the vapor control system is properly maintained and all damaged or malfunctioning components or elements of design are repaired, replaced, or modified;

(4) the gauges, meters, or other specified testing devices are maintained in proper working order;

(5) the delivery vessel and vapor collection system ~~complies~~comply with 15A NCAC 02D .0932; and

(6) the following records are kept in accordance with 15A NCAC 02D .0903:

(A) the scheduled date for maintenance or the date that a malfunction was detected;

(B) the date the maintenance was performed or the malfunction corrected; and

(C) the component or element of design of the control system repaired, replaced, or modified.

(e) The vapor control system required by Paragraph (d) of this Rule shall include one or more of the following:

(1) a vapor-tight line from the storage tank to the delivery vessel, and:

(A) for a coaxial vapor recovery system, either a poppeted or unpoppeted vapor recovery adaptor;

(B) for a dual point vapor recovery system, a poppeted vapor recovery adaptor; or

(2) a refrigeration-condensation system or equivalent designed to recover at least 90 percent by weight of the volatile organic compounds in the displaced vapor.

(f) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the tank liquid fill connection shall remain covered either with a vapor-tight cap or a vapor return line, except when the vapor return line is being connected or disconnected.

(g) If an unpoppeted vapor recovery adaptor is used pursuant to Part (e)(1)(A) of this Rule, the unpoppeted vapor recovery adaptor shall be replaced with a poppeted vapor recovery adaptor when the tank is replaced or is removed and upgraded.

(h) Where vapor lines from the storage tanks are manifolded, poppeted vapor recovery adapters shall be used. No more than one tank is to be loaded at a time if the manifold vapor lines are size 2.5 inches and smaller. If the manifold vapor lines are 3.0 inches and larger, then two tanks at a time may be loaded.

(i) Vent lines on tanks with Stage I controls shall have pressure release valves or restrictors.

(j) The vapor-laden delivery vessel:

(1) shall be designed and maintained to be vapor-tight during loading and unloading operations and during transport with the exception of normal pressure/vacuum venting as required by the Department of Transportation; and

(2) if it is refilled in North Carolina, shall be refilled only at:

(A) bulk gasoline plants complying with 15A NCAC 02D .0926; or

(B) bulk gasoline terminals complying with 15A NCAC 02D .0927 or .0524.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1979;
Amended Eff. July 1, 1996; July 1, 1994; March 1, 1991; December 1, 1989; January 1, 1985;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0932 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0932 GASOLINE CARGO TANKS AND VAPOR COLLECTION SYSTEMS

(a) For the purposes of this Rule, the following definitions apply:

(1) "Bottom filling" means the filling of a cargo tank or stationary storage tank through an opening flush with the tank bottom.

(2) "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons of gasoline and that typically receives gasoline from bulk terminals by ~~trailer~~cargo tank transport, stores it in tanks, and subsequently dispenses it via account cargo tanks to local farms, businesses, and service stations.

(3) "Bulk gasoline terminal" means:

(A) a pipeline breakout station of an interstate oil pipeline facility; or

(B) a gasoline storage facility that typically receives gasoline from refineries primarily by pipeline, ship, or barge; delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by cargo tank; and has an average daily throughput of more than 20,000 gallons of gasoline.

(4) "Cargo tank" means the storage vessels of freight trucks or trailers used to transport gasoline from sources of supply to stationary storage tanks of bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations.

(5) "Cargo tank testing facility" means any facility complying with registration in 49 CFR Part 107, Subpart F.

(6) "Cargo tank vapor collection equipment" means any piping, hoses, and devices on the cargo tank used to collect and route gasoline vapors in the tank to or from the bulk gasoline terminal, bulk gasoline plant, gasoline dispensing facility, or gasoline service station vapor control system or vapor balance system.

(7) "Gasoline" means any petroleum distillate having a Reid Vapor Pressure (RVP) of 4.0 psi or greater.

(8) "Gasoline dispensing facility" means any site where gasoline is dispensed to motor vehicle gasoline tanks from stationary storage tanks.

(9) "Gasoline service station" means any gasoline dispensing facility where gasoline is sold to the motoring public from stationary storage tanks.

(10) "Vapor balance system" means a combination of pipes or hoses that create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

(11) "Vapor collection system" means a vapor balance system or any other system used to collect and control emissions of volatile organic compounds.

(b) This Rule applies to gasoline cargo tanks that are equipped for vapor collection and to vapor control systems at bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations equipped with vapor balance or vapor control systems.

(c) For cargo tanks, the following requirements shall apply:

(1) Gasoline cargo tanks and their vapor collection systems shall be tested annually by a cargo tank testing facility. The facility shall follow the test procedure as defined by 15A NCAC 02D .2615 to certify the gasoline cargo tank leak tight. The gasoline cargo tank shall not be used unless it is certified leak tight.

(2) Each gasoline cargo tank that has been certified leak tight according to Subparagraph ~~(1) of this Paragraph~~(c)(1) of this Rule shall display a sticker near the Department of Transportation certification plate required by 49 CFR 180.415.

(3) There shall be no liquid leaks from any gasoline cargo tank.

(4) Any cargo tank with a leak equal to or greater than 100 percent of the lower explosive limit, as detected by a combustible gas detector using the test procedure described in 15A NCAC 02D .2615 shall not be used beyond 15 days after the leak has been discovered, unless the leak has been repaired and the cargo tank has been certified to be leak tight according to Subparagraph ~~(1) of this Paragraph.~~ (c)(1) of this Rule.

(5) The owner or operator of a gasoline cargo tank with a vapor collection system shall maintain records of all leak testing and repairs. The records shall identify the gasoline cargo tank, the date of the test or repair, and, if applicable, the type of repair and the date of retest. The records of leak tests shall include:

(A) the name, address, and telephone number of cargo tank testing facility performing the leak test;

(B) the name and signature of the individual performing the leak test;

(C) the name and address of the owner of the tank;

(D) the identification number of the tank;

(E) the documentation of tests performed including the date and summary of results;

(F) the continued qualification statement and returned to service status; and

(G) a list or description of identified corrective repairs to the tank. If none are performed then the report shall state "no corrective repairs performed."

(6) A copy of the most recent leak testing report shall be kept with the cargo tank. The owner or operator of the cargo tank shall also file a copy of the most recent leak testing report with each bulk gasoline terminal that loads the cargo tank. The owner or operator shall maintain records ~~shall be maintained~~ for at least two years after the date of the testing or ~~repair,~~ repair and make copies of such records ~~shall be made~~ available ~~within a reasonable time~~ to the Director upon written request.

(d) For bulk gasoline terminals and bulk gasoline plants equipped with vapor balance or vapor control systems, the following requirements shall apply:

(1) The vapor collection system and vapor control system shall be designed and operated to prevent gauge pressure in the cargo tank from exceeding 18 inches of water and to prevent a vacuum of greater than six inches of water.

(2) During loading and unloading operations there shall be:

(A) no vapor leakage from the vapor collection system such that a reading equal to or greater than 100 percent of the lower explosive limit at one inch around the perimeter of each potential leak source as detected by a combustible gas detector using the test procedure described in 15A NCAC 02D .2615; and

(B) no liquid leaks.

(3) If a leak is discovered that exceeds the limit in Subparagraph ~~(2) of this Paragraph:~~(d)(2) of this Rule:

(A) For bulk gasoline plants, the vapor collection system or vapor control system shall not be used beyond 15 days after the leak has been discovered, unless the leak has been repaired and the system has been retested and found to comply with Subparagraph ~~(2) of this Paragraph;~~(d)(2) of this Rule;

(B) For bulk gasoline terminals, the vapor collection system or vapor control system shall be repaired following the procedures in 15A NCAC 02D .0927.

(4) The owner or operator of a vapor collection system at a bulk gasoline plant or a bulk gasoline terminal shall test, according to Rule 15A NCAC 02D .0912, the vapor collection system at least once per year. If after two complete annual checks no more than 10 leaks are found, the Director shall allow less frequent monitoring. If more than 20 leaks are found, the Director shall require the frequency of monitoring be increased.

(5) The owner or operator of vapor control systems at bulk gasoline terminals, bulk gasoline plants, gasoline dispensing facilities, and gasoline service stations equipped with vapor balance or vapor control systems shall maintain records of all certification testing and repairs. The records shall identify each vapor collection system, or vapor control system; the date of the test or repair; and, if applicable, the type of repair and the date of retest.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. July 1, 1980;
Amended Eff. August 1, 2008; June 1, 2008; January 1, 2007; April 1, 2003; August 1, 2002; July 1, 1994; December 1, 1989; January 1, 1985;
Readopted Eff. October 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0960 is repealed as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0960 CARGO TANK LEAK TESTER REPORT

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5), (13);*
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Amended Eff. July 1, 2007;
Readopted Eff. October 1, ~~2020.~~2020;
Repealed Eff. November 1, 2023

15A NCAC 02D .0961 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0961 OFFSET LITHOGRAPHIC PRINTING AND LETTERPRESS PRINTING

(a) For the purposes of this Rule, the definitions listed in this Paragraph and 15A NCAC 02D .0101 and .0902 shall apply.

(1) "Composite partial vapor pressure" means the sum of the partial pressure of the compounds defined as volatile organic compounds. Volatile organic compounds composite partial vapor pressure is calculated as follows:

$$PP_c = \sum_{i=1}^{n} \frac{(W_i)(VP_i)/MW_i}{\frac{W_w}{MW_w} + \frac{W_c}{MW_c} + \sum_{i=1}^{n} \frac{W_i}{MW_i}}$$

Where:

Wi = Weight of the "i" volatile organic compound, in grams

Ww = Weight of water, in grams

Wc = Weight of exempt compound, in grams

MWi = Molecular weight of the "i" volatile organic compound, in g/g-mole

MWw = Molecular weight of water, in g/g-mole

MWc = Molecular weight of exempt compound, in g/g-mole

PPc = Volatile organic compounds composite partial vapor pressure at 20 degrees Celsius (68 degrees Fahrenheit), in mm Hg

VPi = Vapor pressure of the "i" volatile organic compound at 20 degrees Celsius (68 degrees Fahrenheit), in mm Hg

(2) "First installation date" means the actual date when this control device becomes operational. This date does not change if the control device is later redirected to a new press.

(3) "Fountain solution" means water-based solution that applies to lithographic plate to render the non-image areas unreceptive to the ink.

(4) "Heatset" means any operation in which heat is required to evaporate ink oils from the printing ink, excluding ultraviolet (UV) curing, electron beam curing, and infrared drying.

(5) "Letterpress printing" means a printing process in which the image area is raised relative to the non-image area and the paste ink is transferred to the substrate directly from the image surface.

(6) ~~"Non-heatset"~~ "Non-heatset," also referred to as "coldset," means a lithographic printing process where the printing inks are set by absorption or oxidation of the ink oil, not by evaporation of the ink oils in a dryer. For the purposes of this Rule, use of an infrared heater or printing conducted using ultraviolet-cured or electron beam-cured inks is considered non-heatset.

(7) "Offset lithography" means a printing process that uses sheet-fed or web method of press feeding and transfers ink from the lithographic plate to a rubber-covered intermediate "blanket" cylinder and then from the blanket cylinder to the substrate.

(8) "Press" means a printing production assembly composed of one or more units used to produce a printed substrate including any associated coating, spray powder application, heatset web dryer, ultraviolet or electron beam curing units, or infrared heating units.

(9) "Sheet-fed printing" means offset lithographic printing when individual sheets of paper or other substrate are fed to the press.

(10) "Web printing" means offset lithographic printing when continuous rolls of substrate material are fed to the press and rewound or cut to size after printing.

(b) This Rule applies to any offset lithographic and any letterpress printing operations sources that are not covered by 15A NCAC 02D .0966(c)(1) and whose emissions of volatile organic compounds exceed:

(1) the threshold established in 15A NCAC 02D .0902(b) and (f); or

(2) an equivalent level of three tons per 12-consecutive month rolling period.

(c) Volatile organic compounds content in the fountain solution for on-press (as-applied) heatset web offset lithographic printing shall meet one of the following requirements or equivalent level of control as determined in permit conditions:

(1) contain 1.6 percent alcohol or less, by weight, as applied, in the fountain solution:

(2) contain three percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the fountain solution is refrigerated to below 60 degrees Fahrenheit; or

(3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the fountain solution.

(d) Volatile organic compounds content in the fountain solution for on-press (as-applied) sheet-fed lithographic printing shall meet one of the following requirements or equivalent level of control as determined in permit conditions:

(1) contain five percent alcohol or less, by weight, on-press (as-applied) in the fountain solution;

(2) contain 8.5 percent alcohol or less, by weight, on-press (as-applied) in the fountain solution if the fountain solution is refrigerated to below 60 degrees Fahrenheit; or

(3) contain five percent alcohol substitute or less, by weight, on-press (as-applied) and no alcohol in the fountain solution.

(e) Volatile organic compounds content in emissions from fountain solution from non-heatset web offset lithographic printing shall not exceed five percent alcohol substitute (by weight) on-press (as-applied) and contain no alcohol in the fountain solution.

(f) An owner or operator of an individual web offset lithographic printing press dryer or letterpress-printing heatset press subject to this Rule that has potential emissions of ~~emits~~ 25 or more tons per year ~~potential emissions~~ of volatile organic compounds shall:

(1) use an enforceable limitation on potential emissions to keep individual heatset press below 25 tons per year potential to emit volatile organic compounds (petroleum ink oil) threshold, which can be achieved by using inks and coatings that contain less than 31.25 tons per year volatile organic compound (petroleum ink oil) where 20 percent retention factor of petroleum ink oil applies, or by using other methods established by permit conditions; or

(2) use an add-on control system that meets one of the following requirements:

(A) reduces volatile organic compounds emissions from each dryer by at least 90 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was prior to July 1, 2010, at facilities with potential to emit 100 tons or more of volatile organic compounds per year;

(B) reduces volatile organic compounds emissions from each dryer by at least 90 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was prior to May 1, 2013, at facilities with potential to emit less than 100 tons of volatile organic compounds per year;

(C) reduces volatile organic compounds emissions from each dryer by at least 95 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was on or after July 1, 2010, at facilities with potential to emit 100 tons or more of volatile organic compounds per year;

(D) reduces volatile organic compounds emissions from each dryer by at least 95 percent volatile organic compounds emissions control efficiency established by procedures defined in Paragraph (h) of this Rule for a control device from heatset dryers whose first installation date was on or after May 1, 2013, at facilities with potential to emit less than 100 tons of volatile organic compounds per year; or

(E) maintains a maximum volatile organic compounds outlet concentration of 20 parts per million by volume (ppmv), as hexane (C_6H_{14}) on a dry basis.

(g) The control limits established in:

(1) Paragraphs (c), (d), and (e) of this Rule shall not be applied to any press with total fountain solution reservoir of less than one gallon;

(2) Paragraph (d) of this Rule shall not be applied to sheet-fed presses with maximum sheet size 11x 17 inches or smaller; and

(3) Subparagraph (f)(2) of this Rule shall not be applied to a heatset press used for book printing, or to a heatset press with maximum web width of 22 inches or less.

(h) If the owner or operator of a printing press is required by permit conditions to determine:

(1) the volatile organic compounds content, Method 24 of Appendix A to 40 CFR Part 60 or approved alternative methods pursuant to 15A NCAC 02D .2602(h) shall be used; and

(2) the control efficiency by measuring volatile organic compounds at the control device inlet and outlet, Methods 18, 25, or 25A of Appendix A to 40 CFR Part 60, or approved alternative methods pursuant to 15A NCAC 02D .2602(h) shall be used.

(i) All test methods defined in Paragraph (h) of this Rule shall be conducted at typical operating conditions and flow rates.

(j) The owner or operator of any facility subject to this Rule shall demonstrate compliance with RACT applicability requirements by calculating volatile organic compounds emissions and keep records of the basis of the calculations required by 15A NCAC 02D .0605 and .0903. Volatile organic compounds emissions from offset lithographic printing and letterpress printing shall be determined by permit condition requirements or by using the following retention and capture efficiency factors:

(1) the retention factors are:

(A) 20 percent for heatset petroleum ink oils;

(B) 100 percent for heatset vegetable ink oils;

(C) 95 percent for sheet-fed and coldset web petroleum ink oils; and

(D) 100 percent for sheet-fed and coldset web vegetable ink oils.

(2) the retention factor is 50 percent for low volatile organic compounds composite vapor pressure cleaning materials in shop towels where:

(A) volatile organic compounds composite vapor pressure of the cleaning material is less than 10 mm Hg at ~~20ºC;~~ 20 degrees Celsius; and

(B) cleaning materials and used shop towels are kept in closed containers.

(3) carryover (capture) factors of volatile organic compounds from automatic blanket wash and fountain solution to offset lithographic heatset dryers are:

(A) 40 percent VOC carryover (capture) factor for automatic blanket washing when the volatile organic compounds composite vapor pressure of the cleaning material is less than 10mm Hg at ~~20ºC.~~ 20 degrees Celsius.

(B) 70 percent VOC carryover (capture) factor for alcohol substitutes in fountain solution.

(4) capture efficiency for volatile organic compounds (petroleum ink oils) from oil-based paste inks and oil-based paste varnishes (coatings) in heatset web offset lithographic presses and heatset web letterpress presses shall be demonstrated by showing that the dryer is operating at negative pressure relative to the surrounding pressroom. As long as the dryer is operated at negative pressure, the capture efficiency for VOC from the heatset lithographic inks and varnishes (coatings) formulated with low volatility ink oils is 100 percent of the VOC (ink oils) volatilized in the dryer. Capture efficiency test is not required in this situation.

(k) Except as specified in this Paragraph, all cleaning materials used for cleaning a press, press parts, or to remove dried ink from areas around the press shall meet one of the following requirements:

(1) the volatile organic compounds content shall be less than 70 percent by weight; or

(2) composite partial vapor pressure of volatile organic compounds shall be less than 10 mm Hg at 20 degrees Celsius.

No more than 110 gallons per year of cleaning materials that do not meet the requirements of Subparagraph ~~(1) or (2) of this Paragraph~~ (k)(1) or (k)(2) of this Rule shall be used during any 12 consecutive months.

(l) The owner or operator of any facility subject to this Rule shall maintain the following records for a minimum of five years:

(1) parametric monitoring for processes and control devices as determined and at the frequency specified in the permit or by Paragraph (f) of this Rule;

(2) the total amount of each individual or class of fountain solution and ink used monthly for the printing operations and the percentage of volatile organic compounds, alcohol, and alcohol substitute as applied in it;

(3) the total amount of each individual or class of cleaning solutions used monthly with vapor pressure and the percentage of volatile organic compounds as applied in it;

(4) the total amount of cleaning solutions used monthly with the vapor pressure and the percentage of volatile organic compounds as applied ~~that does not meet~~not meeting the vapor pressure or percentage of volatile organic compounds ~~requirements of~~as required in Paragraph (k) of this Rule;

(5) the temperature of fountain solutions for lithographic printing presses using alcohol at the frequency specified in the permit; and

(6) any other parameters required by the permit in accordance with 15A NCAC 02D .0605 and .0903.

(m) The owner or operator of any source subject to this Rule shall comply with 15A NCAC 02D .0903 and .0958.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. September 1, 2010;
Amended Eff. May 1, 2013;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .0964 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .0964 MISCELLANEOUS INDUSTRIAL ADHESIVES

(a) For the purpose of this Rule, the following definitions apply:

(1) "Air-assisted airless spray" means a system that consists of an airless spray gun with a compressed air jet at the gun tip to atomize the adhesive.

(2) "Airless spray" means the application ~~of~~using a pump forcing an adhesive through an atomizing nozzle at high pressure of 1,000 to 6,000 pounds per square ~~inch by a pump forces.~~inch.

(3) "Application process" means a process that consists of a series of one or more adhesive applicators and any associated drying area or oven where an adhesive is applied, dried, and cured.

(4) "Dip coating" means application where substrates are dipped into a tank containing the adhesive. The substrates are then withdrawn from the tank and any excess adhesive is allowed to drain.

(5) "Electrocoating" means a specialized form of dip coating where opposite electric charges are applied to the waterborne adhesive and the substrate.

(6) "Electrostatic spray" means application where the adhesive and substrate are oppositely charged.

(7) "Flow coating" means conveying the substrate over an enclosed sink where the adhesive is applied at low pressure as the item passes under a series of nozzles.

(8) "HVLP" means a system with specialized nozzles that ~~provide~~provides better air and fluid flow than conventional air atomized spray systems at low air pressure, shape spray pattern, and guide high volumes of atomized adhesive particles to the substrate using lower air pressure of 10 pounds per square inch or less at the spray cap.

(9) "Miscellaneous industrial adhesives" means adhesives, including adhesive primers used in conjunction with certain types of ~~adhesives~~ adhesives, used at industrial manufacturing and repair facilities for a wide variety of products and equipment that operate adhesives application processes.

(10) "Roll coating," "brush coating," and "hand application" means application of high viscosity adhesives onto small surface ~~area.~~areas.

(b) Control of volatile organic compounds emissions from miscellaneous industrial adhesives product categories covered by 15A NCAC 02D .0923, .0935, .0961, .0962, .0963, .0965, .0966, .0967, and .0968 are exempted from the requirements of this Rule.

(c) This Rule applies to miscellaneous industrial adhesive application sources whose volatile organic compounds emissions meet the threshold established in 15A NCAC 02D .0902(b).

(d) With the exception established in Paragraph (b) of this Rule, all volatile organic compounds containing materials applied by each miscellaneous industrial adhesive application processes before control shall:

(1) not exceed limits established in ~~Table 1~~Tables1, 2, and 3 of this Rule; and

(2) be used in one of the following application methods in conjunction with using low volatile organic compounds adhesives or adhesive primers:

(A) electrostatic spray;

(B) HVLP spray;

(C) flow coat;

(D) roll coat or hand application, including non-spray application methods similar to hand or mechanically powered caulking gun, brush, or direct hand application;

(E) dip coat including electrodes position;

(F) airless spray;

(G) air-assisted airless spray; or

(H) any other adhesive application method capable of achieving a transfer efficiency equivalent to or better than that achieved by HVLP spraying.

(e) Emission limits established in Subparagraph (d)(1) of this Rule shall be:

(1) met by averaging the volatile organic compounds content of materials used on a single application unit for each day; and

(2) calculated as mass of volatile organic compounds per volume of adhesive primer, excluding water and exempt compounds, as applied.

(f) If an adhesive is used to bond dissimilar substrates together in a general adhesive application process as set forth in ~~Table~~ Tables 1, 2, or 3, then the applicable substrate category with the highest volatile organic compounds emission limit shall be established as the limit for such application.

~~Table 1. Volatile Organic Compounds Emission Limits for General and Specialty Adhesive Application Process.~~

~~General Adhesive Application Processes~~	~~VOC Emission Limit (lb/gal)~~
~~Reinforced Plastic Composite~~	~~1.7~~
~~Flexible vinyl~~	~~2.1~~
~~Metal~~	~~0.3~~
~~Porous Material (Except Wood)~~	~~1~~
~~Rubber~~	~~2.1~~
~~Wood~~	~~0.3~~
~~Other Substrates~~	~~2.1~~
~~Specialty Adhesive Application Processes~~	~~VOC Emission Limit (lb/gal)~~
~~Ceramic Tile Installation~~	~~1.1~~
~~Contact Adhesive~~	~~2.1~~
~~Cove Base Installation~~	~~1.3~~
~~Floor Covering Installation (Indoor)~~	~~1.3~~
~~Floor Covering Installation (Outdoor)~~	~~2.1~~
~~Floor Covering Installation (Perimeter Bonded Sheet Vinyl)~~	~~5.5~~
~~Metal to Urethane/Rubber Molding or Casting~~	~~7.1~~

~~Motor Vehicle Adhesive~~	~~2.1~~
~~Motor Vehicle Weatherstrip Adhesive~~	~~6.3~~
~~Multipurpose Construction~~	~~1.7~~
~~Plastic Solvent Welding (ABS)~~	~~3.3~~
~~Plastic Solvent Welding (Except ABS)~~	~~4.2~~
~~Sheet Rubber Lining Installation~~	~~7.1~~
~~Single Ply Roof Membrane Installation/Repair (Except EPDM)~~	~~2.1~~
~~Structural Glazing~~	~~0.8~~
~~Thin Metal Laminating~~	~~6.5~~
~~Tire Repair~~	~~0.8~~
~~Waterproof Resorcinol Glue~~	~~1.4~~
~~Adhesive Primer Application Processes~~	~~VOC Emission Limit1[Limit] (lb/gal)~~
~~Motor Vehicle Glass Bonding Primer~~	~~7.5~~
~~Plastic Solvent Welding Adhesive Primer~~	~~5.4~~
~~Single Ply Roof Membrane Adhesive Primer~~	~~2.1~~
~~Other Adhesive Primer~~	~~2.1~~

Table 1. Volatile Organic Compounds Emission Limits for General Adhesive Application Processes.

General Adhesive Application Processes	VOC Emission Limit (lb/gal)
Reinforced Plastic Composite	1.7
Flexible vinyl	2.1
Metal	0.3
Porous Material (Except Wood)	1
Rubber	2.1
Wood	0.3
Other Substrates	2.1

Table 2. Volatile Organic Compounds Emission Limits for Specialty Adhesive Application Processes.

Specialty Adhesive Application Processes	VOC Emission Limit (lb/gal)
Ceramic Tile Installation	1.1
Contact Adhesive	2.1
Cove Base Installation	1.3
Floor Covering Installation (Indoor)	1.3
Floor Covering Installation (Outdoor)	2.1
Floor Covering Installation (Perimeter Bonded Sheet Vinyl)	5.5

Metal to Urethane/Rubber Molding or Casting	7.1
Motor Vehicle Adhesive	2.1
Motor Vehicle Weatherstrip Adhesive	6.3
Multipurpose Construction	1.7
Plastic Solvent Welding (ABS)	3.3
Plastic Solvent Welding (Except ABS)	4.2
Sheet Rubber Lining Installation	7.1
Single-Ply Roof Membrane Installation/Repair (Except EPDM)	2.1
Structural Glazing	0.8
Thin Metal Laminating	6.5
Tire Repair	0.8
Waterproof Resorcinol Glue	1.4

Table 3. Volatile Organic Compounds Emission Limits for Adhesive Primer Application Processes.

Adhesive Primer Application Processes	VOC Emission Limit (lb/gal)
Motor Vehicle Glass Bonding Primer	7.5
Plastic Solvent Welding Adhesive Primer	5.4
Single-Ply Roof Membrane Adhesive Primer	2.1
Other Adhesive Primer	2.1

(g) Any miscellaneous industrial adhesive application ~~processes~~process subject to this Rule, which chooses to use add-on control for adhesive application processes rather than to comply with the emission limits established in Paragraph (d) of this Rule, shall install control equipment with overall control efficiency of 85 percent or use a combination of adhesives and add-on control equipment on an application process to meet limits established in Paragraph (d) of this Rule.

(h) EPA Method 24 or 25A of Appendix A to 40 CFR Part 60 shall be used to determine the volatile organic compounds content of adhesives, other than reactive adhesives, and the procedure established in Appendix A of the NESHAP for surface coating of plastic parts (40 CFR Part 63, Subpart PPPP) shall be used to determine the volatile organic compounds content of reactive adhesives unless the facility maintains records to document the volatile organic compounds content of adhesives from the manufacturer.

(i) The owner or operator of any facility subject to this Rule shall comply with ~~the~~ 15A NCAC 02D .0903 and .0958.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*
Eff. September 1, 2010;
Readopted Eff. November 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .1403 is amended as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .1403 COMPLIANCE SCHEDULES

(a) Applicability. This Rule applies to sources regulated by 15A NCAC 02D .1402(d), (e), (f), or (g).

(b) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator of a source subject to this Rule because of the applicability of 15A NCAC 02D .1402(d), (e), (f), or (g) shall adhere to the following increments of progress and schedules:

(1) If compliance with this Section is to be achieved through a demonstration to certify compliance without source modification:

(A) The owner or operator shall notify the Director in writing within six months after the Director's notice in the North Carolina Register that the source is in compliance with the applicable limitation or standard;

(B) The owner or operator shall perform any required testing, pursuant to 15A NCAC 02D .1415, within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable limitation; and

(C) The owner or operator shall implement any required recordkeeping and reporting requirements pursuant to 15A NCAC 02D .1404, within 12 months after the Director's notice in the North Carolina Register to demonstrate compliance with the applicable limitation.

(2) If compliance with this Section is to be achieved through the installation of combustion modification technology or other source modification:

(A) The owner or operator shall submit a permit application and a compliance schedule within six months after the Director's notice in the North Carolina Register.

(B) The compliance schedule shall contain the following increments of progress:

(i) a date by which contracts for installation of the modification shall be awarded or orders shall be issued for purchase of component parts;

(ii) a date by which installation of the modification shall begin;

(iii) a date by which installation of the modification shall be completed; and

(iv) if the source is subject to a limitation, a date by which compliance testing shall be completed.

(C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register unless the owner or operator of the source petitions the Director for an alternative limitation pursuant to 15A NCAC 02D .1412. If a petition has been submitted and approved, final compliance shall be achieved within four years after the Director's notice in the North Carolina Register.

(3) If compliance with this Section is to be achieved through the implementation of an emissions averaging plan pursuant to 15A NCAC 02D .1410;

(A) The owner or operator shall abide by the applicable requirements of ~~Subparagraphs (1) or (2) of this Paragraph~~Subparagraphs (b)(1) or (b)(2) of this Rule for certification or modification of each source to be included under the averaging plan.

(B) The owner or operator shall submit a plan to implement an emissions averaging plan pursuant to 15A NCAC 02D .1410 within six months after the Director's notice in the North Carolina Register.

(C) Final compliance shall be achieved within one year after the Director's notice in the North Carolina Register unless implementation of the emissions averaging plan requires the modification of one or more of the averaging sources. If modification of one or more of the averaging sources is required, final compliance shall be achieved within three years.

(4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel switching program pursuant to 15A NCAC 02D .1411:

(A) The owner or operator shall make all necessary modifications according to ~~Subparagraph (2) of this Paragraph.~~Subparagraph (b)(2) of this Rule.

(B) The owner or operator shall include a plan for complying with the requirements of 15A NCAC 02D .1411 with the permit application required ~~under Part (2)(A) of this Subparagraph.~~in~~[Subparagraph (b)(2)]~~ Part (b)(2)(A) of this Rule.

(C) Final compliance shall be achieved within three years after the Director's notice in the North Carolina Register.

(5) Increments of progress certification. The owner or operator shall certify to the Director, within five days after each increment deadline of progress in this Paragraph, whether the required increment of progress has been met.

(c) Nonattainment areas. The owner or operator of a source subject to this Rule because of the applicability of 15A NCAC 02D .1402(d), shall adhere to the following:

(1) If compliance with this Section is to be achieved through a demonstration to certify compliance without source modification:

(A) The owner or operator shall notify the Director in writing by August 1, 2007;

(B) The owner or operator shall perform any required testing, according to 15A NCAC 02D .1415, by January 1, 2008; and

(C) The owner or operator shall implement any required recordkeeping and reporting requirements, according to 15A NCAC 02D .1404, by January 1, 2008.

(2) If compliance with this Section is to be achieved through the installation of combustion modification technology or other source modification:

(A) The owner or operator shall submit a permit application and a compliance schedule by August 1, 2007.

(B) The compliance schedule shall contain a date by which contracts for installation of the modification shall be awarded or orders shall be issued for purchase of component parts.

(C) The compliance schedule shall contain a date by which installation of the modification shall begin.

(D) The compliance schedule shall contain a date by which installation of the modification shall be completed.

(E) If the source is subject to a limitation, the compliance schedule shall contain, a date by which compliance testing shall be completed.

(F) Final compliance shall be achieved no later than April 1, 2009.

(3) If compliance with this Section is to be achieved through the implementation of an emissions averaging plan as provided for in 15A NCAC 02D .1410:

(A) The owner or operator shall abide by the applicable requirements of ~~Subparagraph (1) or (2) of this Paragraph~~Subparagraphs (c)(1) or (c)(2) of this Rule for certification or modification of each source to be included under the averaging plan.

(B) The owner or operator shall submit a plan to implement an emissions averaging plan according to 15A NCAC 02D .1410 by August 1, 2007.

(C) Final compliance shall be achieved within one year no later than January 1, 2008.

(4) If compliance with this Section is to be achieved through the implementation of a seasonal fuel switching program as provided for in 15A NCAC 02D .1411:

(A) The owner or operator shall make all necessary modifications according to ~~Subparagraph (2) of this Paragraph.~~Subparagraph (c)(2) of this Rule.

(B) The owner or operator shall include a plan for complying with the requirements of 15A NCAC 02D .1411 with the permit application required ~~under Part (2)(A) of this Subparagraph.~~in~~[Subparagraph (c)(2)]~~ Part (c)(2)(A) of this Rule.

(C) Final compliance shall be achieved no later than April 1, 2009.

(5) Increments of progress certification. The owner or operator shall certify to the Director, within five days after the deadline for each increment of progress in this Paragraph, whether the required increment of progress has been met.

(d) Sources already in compliance.

(1) Maintenance area and Charlotte ozone nonattainment area contingency plan. Paragraph (b) of this Rule shall not apply to sources ~~that~~that:

(A) are in compliance with the applicable rules of this Section when the Director notices in the North Carolina Register the implementation of rules ~~in the North Carolina Register~~ that resolves a violation of the ambient air quality standard for ~~ozone~~ozone; and

(B) ~~that has~~have determined and certified compliance to the Director within six months after the Director notices in the North Carolina Register the implementation of rules ~~in the North Carolina Register~~ that resolves a violation of the ambient air quality standard for ozone.

(2) Nonattainment areas. Paragraph (c) of this Rule shall not apply to sources in an area named in 15A NCAC 02D .1402(d) that are in compliance with applicable rules of this Section on March 1, 2007.

(e) New sources.

(1) Maintenance area and Charlotte ozone nonattainment area contingency plan. The owner or operator of any new source of nitrogen oxides not permitted before the date the Director notices in the North Carolina Register according to 15A NCAC 02D .1402(e), (f), or (g) shall comply with all applicable rules in this Section upon start-up of the source. The owner or operator of any new source covered by 15A NCAC 02D .1407, .1408, .1409, .1413, or .1418 shall comply with all applicable rules in this Section upon start-up of the source.

(2) Nonattainment areas. The owner or operator of any new source of nitrogen oxides not permitted before March 1, 2007 in an area identified in 15A NCAC 02D .1402(d) shall comply with all applicable rules in this Section upon start-up of the source.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.65; 143.215.107(a)(5); 143.215.107(a)(7); 143.215.107(a)(10);*
Eff. April 1, 1995;
Amended Eff. April 1, 1997;
Temporary Amendment Eff. November 1, 2000;
Amended Eff. April 1, 2001;
Temporary Amendment Eff. August 1, 2001;
Amended Eff. July 1, 2007; March 1, 2007; July 18, 2002;
Readopted Eff. October 1, ~~2020.~~2020;
Amended Eff. November 1, 2023.

15A NCAC 02D .1708 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02D .1708 REPORTING REQUIREMENTS

(a) The owner or operator of an existing MSW landfill subject to this Rule according to 15A NCAC 02D .1702 shall submit a design capacity report to the Director as follows:

(1) The initial design capacity report shall be submitted no later than 90 days after the effective date of the EPA approval of the State Plan pursuant to Section 111(d) of the Clean Air Act.

(2) The initial design capacity report shall contain the information given in 40 CFR 60.38f(a)(1) and 40 CFR 60.38f(a)(2).

(b) The owner or operator of an existing MSW landfill subject to this Section shall submit an amended design capacity report providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to meet or exceed 2.5 million megagrams and 2.5 million cubic meters. An increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in 15A NCAC 02D .1709(j).

(c) The owner or operator of an existing MSW landfill subject to this Rule shall submit a NMOC emission rate report to the Director no later than 90 days after the effective date of EPA approval of the State plan pursuant to Section 111(d) of the Clean Air Act and annually thereafter, except as provided for in 40 CFR 60.38f(c). The NMOC emission rate report shall:

(1) contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.35f(a) or (b), as applicable;

(2) include all the data, calculations, sample reports, and measurements used to estimate the annual or five-year emissions; and

(3) if the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimate waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. All data and calculations shall be provided. This estimate shall be revised at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate shall be submitted. The revised estimate shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

Each owner and operator subject to the requirements of this Rule shall be exempted from the requirements to submit an NMOC emission rate report, after installing a compliant collection and control system, during such time as the collection and control system is in operation and in compliance with 15A NCAC 02D .1705 and .1706.

(d) The owner or operator of an existing MSW landfill subject to 15A NCAC 02D .1703(b) shall submit a collection and control system design plan to the Director within one year of the first NMOC emission rate report, required under

Paragraph (c) of this Rule, in which the emission rate equals or exceeds 34 megagrams per year, except as provided for in 40 CFR 60.38f(d)(4)(i), 60.38f(d)(4)(ii), and 60.38f(d)(4)(iii). The collection and control system design plan shall include:

(1) a description of the collection and control system;

(2) a description of any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions provided in this Rule; and

(3) a description indicating how the plan conforms to specifications for active collection systems or a demonstration of sufficient alternative provisions as given in 40 CFR 60.40f.

(e) The owner or operator of an existing MSW landfill who ~~has already~~ previously submitted a design plan pursuant to Paragraph (d)~~-~~ of this Rule, pursuant to 40 CFR Part 60, Subpart WWW, or a State plan implementing 40 CFR Part 60, Subpart Cc, shall submit a revised design plan that includes the information in Subparagraphs (d)(1) through ~~(d)(3).~~(d)(3) of this ~~[Rule.]~~Rule ~~The revised design plan shall be submitted to the Director~~ as follows:

(1) at least 90 days before expanding operations to an area ~~no~~ not covered by the previously approved design plan; and

(2) prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director in Paragraph (d) of this Rule.

(f) The owner or operator of a controlled MSW landfill shall submit a closure report to the Director within 30 days of cessation of waste acceptance. If a closure report has been submitted to the Director, no additional waste shall be placed into the landfill without first filing a notification of modification as described pursuant to 40 CFR 60.7(a)(4). The Director may request such additional information to verify that permanent closure of the MSW landfill has taken place pursuant to the requirements of 40 CFR 258.60.

(g) The owner or operator of a controlled MSW landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment according to 15A NCAC 02D .1703(f). The report shall contain the items listed in 40 CFR 60.38f(g). The Director may request such additional information to verify that all the conditions for removal in 40 CFR 60.33f(f) have been met.

(h) The owner or operator of a MSW landfill seeking to comply with 15A NCAC 02D .1703(b) using an active collection system designed in accordance with 40 CFR 60.33f(b) shall submit, following the procedures pursuant to 40 CFR 60.38f(j)(2), annual reports of the recorded information in 40 CFR 60.38f(h)(1) through (h)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. The initial performance test report shall be submitted by following the procedures pursuant to 40 CFR 60.38f(j)(1). Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707~~ the owner or operator~~ shall follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of this Paragraph.

(i) The owner or operator of an existing MSW landfill required to comply with 15A NCAC 02D .1703(b) shall include the information given in 40 CFR 60.38f(i)(1) through (i)(6) with the initial performance test report required pursuant to 40 CFR 60.8.

(j) The owner or operator of an existing MSW landfill shall submit a report within 60 days after the date of completing each performance test pursuant to 40 CFR 60.38f(j).

(k) The owner or operator of an existing MSW landfill required to implement corrective ~~active,~~action, shall submit reports to the Director pursuant to 40 CFR 60.38f(k)(1) and (k)(2). Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707 shall follow the corrective action and the corresponding timeline reporting requirements in 40 CFR 63.1981(j) in lieu of this Paragraph.

(l) The owner or operator of an affected MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit within the last 10 years shall submit an annual report to the Director that includes the information pursuant to 40 CFR 60.38f(l)(1) through (l)(10). The annual report shall be submitted by following the procedures pursuant to 40 CFR 60.38f(j)(2).

(m) The owner or operator of an affected MSW landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on Tier 4 provisions of 40 CFR 60.35f(a)(6), shall provide notifications to the Director in accordance with 40 CFR 60.38f(m)(1) and (m)(2).

(n) Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707, shall submit the 24-hour high temperature report according to 40 CFR 63.1981(k).

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);*
Eff. July 1, 1998;
Amended Eff. July 1, 2000;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, ~~2021.~~2021;
Amended Eff. November 1, 2023.

15A NCAC 02Q .0102 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02Q .0102 ACTIVITIES EXEMPTED FROM PERMIT REQUIREMENTS

(a) For the purposes of this Rule, the definitions listed in 15A NCAC 02D .0101 and 15A NCAC 02Q .0103 shall apply.

(b) This Rule shall not apply to:

(1) facilities whose potential emissions require a permit pursuant to 15A NCAC 02Q .0500 (Title V Procedures); or

(2) a source emitting a pollutant that is part of the facility's 15A NCAC 02D .1100 (Control of Toxic Air Pollutants) modeling demonstration if that source is not exempted pursuant to 15A NCAC 02Q .0702.

(c) The owner or operator of an activity exempt from permitting pursuant to this Rule shall not be exempt from demonstrating compliance with any other applicable State or federal requirement.

(d) Any facility whose actual emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants, and toxic air pollutants are each less than five tons per year and whose actual total aggregate emissions are less than 10 tons per year shall not be required to obtain a permit pursuant to 15A NCAC 02Q .0300. This Paragraph shall not apply to synthetic minor facilities that are regulated pursuant to 15A NCAC 02Q .0315.

(e) Any facility that is not exempted from permitting pursuant to Paragraph (d) of this Rule and whose actual total aggregate emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, hazardous air pollutants, and toxic air pollutants are greater than or equal to five tons per year and less than 25 tons per year may register their facility pursuant to 15A NCAC 02D .0202 instead of obtaining a permit pursuant to 15A NCAC 02Q .0300. This Paragraph shall not apply to:

(1) synthetic minor facilities that are regulated pursuant to 15A NCAC 02Q .0315;

(2) facilities with a source subject to maximum achievable control technology pursuant to 40 CFR Part 63;

(3) facilities with sources of volatile organic compounds or nitrogen oxides that are located in a nonattainment area; or

(4) facilities with a source regulated pursuant to New Source Performance Standards (NSPS), unless the source is exempted pursuant to Paragraph (g) or (h) of this Rule.

(f) The Director may require the owner or operator of a facility to register such facility pursuant to 15A NCAC 02D .0200 or obtain a permit pursuant to 15A NCAC 02Q .0300, if necessary to obtain compliance with any other applicable State or federal requirement.

(g) The following activities shall not require a permit or permit modification pursuant to 15A NCAC 02Q .0300:

(1) maintenance, upkeep, and replacement:

(A) maintenance, structural changes, or repair activities that do not increase the capacity of such process and do not cause any change in the quality or nature or an increase in quantity of an emission of any regulated air pollutant;

(B) housekeeping activities or building maintenance procedures, including painting buildings, paving parking lots, resurfacing floors, repairing roofs, washing, using portable vacuum cleaners, sweeping, using and associated storing of janitorial products, or removing insulation;

(C) using office supplies, supplies to maintain copying equipment, or blueprint machines;

(D) using firefighting equipment (excluding engines regulated pursuant to 40 CFR 63, Subpart ZZZZ); or

(E) replacing existing equipment with equipment of the same size (or smaller), type, and function that does not result in an increase to the actual or potential emission of regulated air pollutants, does not affect the facility's compliance with any other applicable State or federal requirements, and that fits the description of the existing equipment in the permit, including the application, such that the replacement equipment can be lawfully operated pursuant to that permit without modifying the permit;

(2) air conditioning or ventilation: comfort air conditioning or comfort ventilating systems that do not transport, remove, or exhaust regulated air pollutants to the atmosphere;

(3) laboratory or classroom activities:

(A) bench-scale, on-site equipment used for experimentation, chemical or physical analysis for quality control purposes or for diagnosis of illness, training, or instructional purposes;

(B) research and development activities that produce no commercial product or feedstock material; or

(C) educational activities, including wood working, welding, and automotive repair;

(4) storage tanks with no applicable requirements other than Stage I controls pursuant to 15A NCAC 02D .0928, Gasoline Service Stations Stage I;

(5) combustion and heat transfer equipment:

(A) heating units used for human comfort, excluding space heaters burning used oil, that have a heat input of less than 10 million Btu per hour and that do not provide heat for any manufacturing or other industrial process;

(B) residential wood stoves, heaters, or fireplaces; or

(C) water heaters that are used for domestic purposes only and are not used to heat process water;

(6) wastewater treatment processes: industrial wastewater treatment processes or municipal wastewater treatment processes for which there are no ~~state~~State or federal air requirements;

(7) dispensing equipment: equipment used solely to dispense gasoline, diesel fuel, kerosene, lubricants, or cooling oils;

(8) electric motor burn-out ovens with secondary combustion chambers or afterburners;

(9) electric motor bake-on ovens;

(10) burn-off ovens with afterburners for paint-line hangers;

(11) hosiery knitting machines and associated lint screens, hosiery dryers and associated lint screens, and hosiery dyeing processes that do not use bleach or solvent dyes;

(12) woodworking operations processing only green wood;

(13) solid waste landfills: This exemption does not apply to flares and other sources of combustion at solid waste landfills. These flares and other combustion sources shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless they qualify for another exemption pursuant to this Paragraph; or

(14) miscellaneous:

(A) equipment that does not emit any regulated air pollutants;

(B) sources for which there are no applicable requirements;

(C) motor vehicles, aircraft, marine vessels, locomotives, tractors, or other self-propelled vehicles with internal combustion engines;

(D) engines regulated pursuant to Title II of the Federal Clean Air Act (Emission Standards for Moving Sources);

(E) equipment used for preparing food for direct on-site human consumption;

(F) a source whose emissions are regulated only pursuant to Section 112(r) or Title VI of the Federal Clean Air Act;

(G) exit gases from in-line process analyzers;

(H) stacks and vents that prevent the escape of sewer gases from domestic waste through plumbing traps;

(I) refrigeration equipment that complies with the regulations set forth in Sections 601 through 618 of Title VI (Stratospheric Ozone Protection) of the Federal Clean Air Act, 40 CFR Part 82, and any other regulations promulgated by EPA pursuant to Title VI for stratospheric ozone protection, except refrigeration equipment used as or in conjunction with air pollution control equipment. Refrigeration equipment used as or in conjunction with air pollution control equipment shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless it qualifies for another exemption pursuant to this Paragraph;

(J) equipment not vented to the outdoor atmosphere, with the exception of equipment that emits volatile organic compounds. Equipment that emits volatile organic compounds shall obtain a permit pursuant to 15A NCAC 02Q .0300 unless it qualifies for another exemption pursuant to this Paragraph;

(K) animal operations not required to have control technology pursuant to 15A NCAC 02D .1800. If an animal operation is required to have control technology, it shall obtain a permit pursuant to this Subchapter;

(L) any incinerator that meets the requirements set forth in 15A NCAC 02D .1201(c)(4); or

(M) dry cleaning operations, regardless of NSPS or NESHAP applicability.

(h) The following activities shall not require a permit or permit modification pursuant to 15A NCAC 02Q .0300. These activities shall be included in determining applicability of any rule or standard that requires facility-wide aggregation of source emissions, including activities regulated by 15A NCAC 02D .0530, 15A NCAC 02D .0531, 15A NCAC 02Q .0500, and 15A NCAC 02Q .0700:

(1) combustion and heat transfer equipment (including direct-fired equipment that only emit regulated pollutants from fuel combustion):

(A) fuel combustion equipment (excluding internal combustion engines) not regulated pursuant to 40 CFR Part 60, NSPS, firing exclusively unadulterated liquid fossil fuel, wood, or an approved equivalent unadulterated fuel as defined in 15A NCAC 02Q .0103;

(B) fuel combustion equipment (excluding internal combustion engines) firing exclusively natural gas or liquefied petroleum gas or a mixture of these fuels; or

(C) space heaters burning waste oil if:

(i) the heater burns only oil that the owner or operator generates or used oil from do-it-yourself oil changers who generate used oil as household wastes; and

(ii) the heater is designed to have a maximum heat input of not more than 500,000 Btu per hour;

(2) gasoline distribution: bulk gasoline plants, as defined in 15A NCAC 02D .0926(a)(3), with an average daily throughput of less than 4,000 gallons;

(3) paint spray booths or graphic arts operations, coating operations, and solvent cleaning operations, as defined in 15A NCAC 02Q .0803, located at a facility whose facility-wide actual uncontrolled emissions of volatile organic compounds are less than five tons per year, except that such emission sources whose actual uncontrolled emissions of volatile organic compounds are less than 100 pounds per year shall qualify for this exemption regardless of the facility-wide emissions. For the purpose of this exemption, water wash and filters that are an integral part of the paint spray booth shall not be considered air pollution control devices;

(4) electrostatic dry powder coating operations with filters or powder recovery systems;

(5) miscellaneous: any source whose potential uncontrolled emissions of particulate matter (PM10), sulfur dioxide, nitrogen oxides, volatile organic compounds, and carbon monoxide shall each be no more than five tons per year; or

(6) case-by-case exemption: activities that the applicant demonstrates to the Director do not violate any applicable emission control standard.

(i) ~~The~~ Upon request of the Director, the owner or operator of a facility or source claiming that an activity is exempt ~~pursuant to~~ under Paragraphs (d), (e), (g) or (h) of this Rule shall submit emissions data, documentation of equipment type, or other supporting documents ~~to the Director upon request that~~ demonstrating the facility or source is qualified for that exemption.

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4); 143-215.108;*
Temporary Adoption Eff. March 8, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Eff. July 1, 1994;
Amended Eff. April 1, 1999; July 1, 1998; July 1, 1997; November 1, 1996;
Temporary Amendment Eff. December 1, 1999;
Amended Eff. June 13, 2016; May 1, 2013; January 1, 2009; July 1, 2007; June 29, 2006; July 18, 2002; July 1, 2000;
Readopted Eff. April 1, ~~2018.~~2018;
Amended Eff. November 1, 2023.

15A NCAC 02Q .0706 is amended with changes as published in 37:17 NCR 1130 as follows:

15A NCAC 02Q .0706 MODIFICATIONS

(a) The owner or operator shall comply with Paragraphs (b) and (c) of this Rule for a modification that is subject to a Rule ~~Section~~ in 15A NCAC 02D other than a Rule in 15A NCAC 02D .1100 and that:

(1) requires a permit pursuant to 15A NCAC 02Q ~~.0300;~~.0300 or .0500; or

(2) occurs at a facility with a permit pursuant to 15A NCAC 02Q .0500 and emits a pollutant that is part of the facility's previous modeling demonstration conducted pursuant to 15A NCAC 02D .1104 and 15A NCAC 02Q .0709, if that modification is not exempted pursuant to 15A NCAC 02Q .0702.

This Rule shall not apply to facilities whose emissions of toxic air pollutants result only from insignificant activities, as defined in 15A NCAC 02Q .0103(20), or result only from sources exempted pursuant to 15A NCAC 02Q .0102.

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

(1) a net increase in emissions or ambient concentration as previously determined pursuant to 15A NCAC 02D .1106 and 15A NCAC 02Q .0709 of any toxic air pollutant that the facility was emitting before the modification; or

(2) emissions of any toxic air pollutant that the facility was not emitting before the modification if such emissions exceed the levels set forth in 15A NCAC 02Q .0711.

(c) The permit application filed pursuant to this Rule shall include an evaluation for all toxic air pollutants identified pursuant to Paragraph (b) of this Rule.

(d) All sources at the facility, excluding sources exempt ~~from evaluation~~ pursuant to 15A NCAC 02Q .0702, emitting these toxic air pollutants shall be included in the ~~evaluation.~~ evaluation of toxic air pollutants required by Paragraph (c) of this Rule. Sources meeting the exemption set forth in 15A NCAC 02Q .0702(a)(27) shall be reviewed by the Division pursuant to G.S. 143-215.107(a)(5)b.

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

History Note: *Authority G.S. 143-215.3(a)(1); 143-215.107; 143-215.108; 143B-282;*
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;
Readopted Eff. July 1, ~~2018.~~2018;
Amended Eff. November 1, 2023.

Burgos, Alexander N

Subject: FW: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes
Attachments: 08.2023 EMC Extension Letter.pdf

From: Liebman, Brian R <brian.liebman@oah.nc.gov>
Sent: Friday, August 18, 2023 11:17 AM
To: Everett, Jennifer <jennifer.everett@deq.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Good morning,

Attached, please find a letter concerning the extension granted at yesterday's meeting.

Please let me know if you have any questions or concerns.

Best,
Brian

Brian Liebman
Counsel to the North Carolina Rules Review Commission
Office of Administrative Hearings
(984)236-1948
brian.liebman@oah.nc.gov

Burgos, Alexander N

Subject: FW: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

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From: Liebman, Brian R <brian.liebman@oah.nc.gov>
Sent: Wednesday, August 9, 2023 2:06 PM
To: Everett, Jennifer <jennifer.everett@deq.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: Re: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Hi Jennifer,

Thank you for letting me know. I will recommend to the commission that they approve your request.

Thanks,
Brian

Brian Liebman
Counsel to the North Carolina Rules Review Commission
Office of Administrative Hearings
(984)236-1948
brian.liebman@oah.nc.gov

From: Everett, Jennifer <jennifer.everett@deq.nc.gov>
Sent: Wednesday, August 9, 2023 2:04:57 PM
To: Liebman, Brian R <brian.liebman@oah.nc.gov>; Rules, Oah <oah.rules@oah.nc.gov>
Cc: Quinlan, Katherine L <katherine.quinlan@deq.nc.gov>; Burgos, Alexander N <alexander.burgos@oah.nc.gov>
Subject: RE: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes

Brian,

We are requesting an extension for the period of review. This will allow staff additional time to address your technical change requests.

Jennifer

Jennifer Everett
DEQ Rulemaking Coordinator
N.C. Depart. Of Environmental Quality
Office of General Counsel
1601 Mail Service Center
Raleigh, NC 27699-1601
Tele: (919)-707-8595
https://deq.nc.gov/permits-rules/rules-regulations/deq-proposed-rules

Burgos, Alexander N

From: Liebman, Brian R
Sent: Friday, August 4, 2023 10:38 AM
To: Everett, Jennifer
Cc: Quinlan, Katherine L; Burgos, Alexander N
Subject: 15A NCAC 02D, 02Q - August 2023 RRC - Requests for Changes
Attachments: 08.2023 - 15A NCAC 02D, 02Q - Request for Changes.docx

Good morning,

I'm the attorney who reviewed the Rules submitted by the Board for the August 2023 RRC meeting. The RRC will formally review these Rules at its meeting on Thursday, August 17, 2023, at 9:00 a.m. The meeting will be a hybrid of in-person and WebEx attendance, and an evite should be sent to you as we get closer to the meeting. If there are any other representatives from your agency who will want to attend virtually, let me know prior to the meeting, and we will get evites out to them as well.

Please submit the revised Rules and forms to me via email, no later than 5 p.m. on Friday, August 11, 2023.

In the meantime, please do not hesitate to reach out via email with any questions or concerns.

Thanks,

Brian

Brian Liebman
Counsel to the North Carolina Rules Review Commission
Office of Administrative Hearings
(984)236-1948
brian.liebman@oah.nc.gov