



COMMONWEALTH of VIRGINIA

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MEMORANDUM

TO: Regional Directors, Director – Air Permits, Director – Air Compliance, Director – Data Analysis and Planning, Director – Regulatory Affairs, Air Permit Managers, Air Compliance Managers

CC: Richard F. Weeks, Chief Deputy Director
James J. Golden, Deputy Director for Program Development

FROM: Michael G. Dowd – Director, Air Division

SUBJECT: APG-356: Revised Article 6 Regulation

DATE: December 19, 2012 as amended August 31, 2020

Purpose:

This policy provides interim guidance to air permitting staff concerning the revised minor new source review (NSR) regulation (i.e. Article 6), which includes, but is not limited to, changes in permit applicability, changes in state best available control technology (BACT), and additional exemptions. The revised Article 6 regulation is effective November 7, 2012. This guidance is not intended to cover every possible situation but should be applicable in most scenarios.

Check with the regional air permit manager and/or the central office staff if a deviation from the guidance is considered to be necessary.

Background:

On May 21, 2002, the Board adopted major revisions to the minor NSR program and Article 6 which became effective on September 1, 2002. The evolution of 9 VAC 5-80-10 and 11 to Article 6 of Part II of 9 VAC 5 Chapter 80 resulted in several major changes being made to the program enabling regulation, most significant being the change in the permit applicability test from an “uncontrolled” test to a “net emissions increase” test. Implementation of the new regulation was more difficult than anticipated and resulted in creation of a significant burden on the Department staff and regulated community. To remedy this, it was decided to return to pre-2002 minor NSR regulation. At the direction of the 2008 General Assembly, the permit applicability test was changed back to an “uncontrolled-to-uncontrolled” test on December 31, 2008. Guidance on the “uncontrolled-to-uncontrolled” test (APG-354) was issued on January 5, 2009 (as amended March 17, 2009) has been issued and can be found on TownHall. This guidance addresses other changes that were made to Article 6 after November 7, 2012.

Applicability:

This guidance only applies to Article 6 permitting on and after November 7, 2012. If a source has submitted a complete application before November 7, 2012, then the source is subject to the previous Article 6 regulation.

Implementation:

Changes/additions that were made in the revised Article 6 regulation are stated below:

1. Projects

“Project” is a new term in the revised Article 6 regulation. A project is “any change at an existing stationary source consisting of the addition, replacement or modification of one or more emissions units.” This terminology was created for distinguishing between Greenfield actions and actions at previously established sources; therefore, the permit action is either for a Greenfield source or for a project.

2. “Replacement” Instead of “Reconstruction”

The concept of “reconstruction” of an emission unit being subject to Article 6 has been replaced by the concept of “replacement” of an emissions unit. “Reconstruction” is no longer an activity which triggers Article 6 permitting and the term has only been retained to support provisions for termination for past Article 6 actions that were triggered for reconstruction. “Replacement” includes only the replacement of the entire emission unit. Non-routine replacement of components is to be treated as a modification if it meets that definition.

3. Eliminates Netting

The revised Article 6 has been changed to convert from a permit applicability approach which looked at the net emissions increase due to or directly resultant from the physical or operational changes from all the source wide emission changes in the project, back to an approach that only looks at emission increases from added, modified, or replacement emission units in the project to determine applicability. The definition of “modification” has been changed from “...that would result in a net emissions increase...” to “...that increases the uncontrolled emission rate...” Therefore, permit applicability is based on emission increases only and all emission decreases from affected emission units will no longer be considered in determining permit applicability. Netting is eliminated.

4. Eliminates Debottlenecking

Previous permit applicability was based on the net emissions increase based on all the source wide emission changes due to or directly resultant from a physical or operational change. The revised Article 6 regulation bases permit applicability on the emissions from only those emission units that are affected by a physical or operational change at the project. Therefore, debottlenecked emissions (collateral emission increases and decreases from unchanged processes and equipment) will no longer be considered in determining permit applicability.

5. ~~State BACT Changes~~

Commented [CP(1)]: Superseded by revision of Chapter 8 in APG-350/350A.

Previously, State BACT applied to:

- a. ~~New stationary source:~~ Each regulated pollutant that would have the *potential to emit* in amounts greater than or equal to the exemption levels, and
- b. ~~Modification:~~ Each regulated pollutant that would result in a net emissions increase at the source. This requirement would apply to each *proposed emissions unit* at which a net emissions increase in the pollutant would occur in amounts greater than or equal to exemption levels.

The revised Article 6 regulation applies State BACT to:

- a. ~~New stationary source:~~ Each regulated pollutant for which there would be an *uncontrolled emission rate* greater than or equal to the exemption levels, and
- b. ~~Project:~~ Each regulated pollutant that would have an increase in the uncontrolled emission rate greater than or equal to the exemption levels. This requirement will apply to *each affected emission unit in the project*.

Therefore, State BACT has been changed such that:

- a. BACT will be applied for each regulated pollutant based on an increase in the uncontrolled emission rate, not the potential to emit.
- b. The minimum net emission increase applicability thresholds for individual affected emission units have been eliminated. Therefore, emission decreases are not considered for BACT applicability. Netting has been eliminated.
- c. BACT will be applied to all emission units that become subject to Article 6, not just on proposed units as in the previous Article 6. In cases where the project involves (i) multiple emission units or (ii) an emission unit with a previous BACT determination of "no additional control", there may be enough emissions of a pollutant in aggregate to justify a control technology on a cost-benefit basis, even when the uncontrolled emissions increase from one emissions unit would be exempt.
- d. For pollutants that have an increase in uncontrolled emissions above significance levels, BACT will be looked at for all emissions from an uncontrolled unit and not just on the "new emissions" being proposed on the unit; therefore, the entire unit is looked at and evaluated. Where appropriate, the incremental emission reduction can be used for units that already have a control device, i.e. current control vs. new control.

6. Addition of PM 2.5 as a Regulated Pollutant

New exemption thresholds were added to the revised Article 6 regulation for PM 2.5. These new thresholds include both filterables and condensables and are as follows:

- a. For a New Source = 10 tons PM 2.5/yr
- b. For a Project = 6 tons PM 2.5/yr

7. NSPS Sources Do Not Automatically Require a Permit

Previously, if an affected facility was subject to Article 5 (9VAC5-50-400 et seq.) of Part II of 9 VAC 5 Chapter 50 (a NSPS), and the NSPS required more than recordkeeping and reporting, it was automatically required to obtain an Article 6 permit. This requirement has been removed from the revised Article 6 regulation. This change, in part, is a result of the increasing number of NSPSs that cover smaller and smaller facilities/units, such as small combustion engines, and the resource burden it would create without achieving significant environmental benefit. As long as the unit is below the exemption thresholds in 9 VAC 5-80-1105, no permit is required, but the source is still responsible for meeting the NSPS.

8. ~~Nonroad Engine vs. Portable~~

~~This change corrected a conflict between the definition of "nonroad engine" and the definition of "portable". The definition of "nonroad engine" has been changed to remove the general exclusion for all nonroad portable engines, i.e. these engines will now be treated as any other portable emission unit. The revised definition of "nonroad engine" is as follows:~~

~~"Nonroad engine" means any internal combustion engine:~~

- ~~1. In or on a piece of equipment that is self propelled or serves a dual purpose by both propelling itself and performing another function (such as garden tractors, off-highway mobile cranes and bulldozers); or~~
- ~~2. In or on a piece of equipment that is intended to be propelled while performing its function (such as lawnmowers and string trimmers).~~

~~An internal combustion engine is not a nonroad engine if the engine is used to propel a motor vehicle or a vehicle used solely for competition, or is subject to standards promulgated under § 202 of the federal Clean Air Act.~~

~~****Note:** Because of this change, Virginia's definition of "nonroad engine" is different than the federal definition (the portable language was excluded in the Virginia definition). As a result, an emissions unit can be a nonroad engine federally but not a nonroad engine for Virginia.~~

9. New Exemptions:

Exemptions have been moved from 9 VAC 5-80-1320 to 9 VAC 5-80-1105.

- a. Vegetative waste recycling/mulching operations - Vegetative waste recycling/mulching operations which do not exceed 2100 hours of operation in any 12-month consecutive period at a single stationary source may qualify to be exempt. To qualify for the exemption under this subdivision, the total rated capacity of all

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diesel engines at the source, including portable diesel engines temporarily located at the site, may not exceed 1200 brake horsepower (output).

- b. Replacement of an emissions unit - Replacement of an emissions unit may be exempt if subject to the following criteria:
- i. The replacement emission unit is (i) of an equal or lesser size and (ii) of an equal or lesser rated capacity as compared to the replaced emissions unit.
 - ii. The replacement emissions unit is functionally equivalent to the replaced emissions unit.
 - iii. The replacement emissions unit does not change the basic design parameters of the process operation.
 - iv. The potential to emit of the replacement emissions unit does not exceed the potential to emit of the replaced emissions unit. If the replaced emissions unit is subject to terms and conditions contained in a minor NSR permit, the owner may, concurrently with the notification required in subdivision (6) of this subdivision, request a minor amendment as provided in 9 VAC 5-80-1280 B 4 to that permit to apply those terms and conditions to the replacement emissions unit. However, the replacement emissions unit's potential to emit is not limited for the purposes of this subdivision unless (and until) the requested minor permit amendment is granted by the board.
 - v. The replaced emissions unit is either removed or permanently shut down in accordance with the provisions of 9 VAC 5-20-220.
 - vi. The owner notifies the board, in writing, of the proposed replacement at least 15 days prior to commencing construction on the replacement emissions unit. Such notification shall include the size, function, and rated capacity of the existing and replacement emissions units and the registration number of the affected stationary source.
- c. Reduction in stack outlet elevation - A reduction in stack outlet elevation may be exempt provided the stack serves only facilities that have been previously determined to be exempt from the minor NSR program.
- d. Space heaters – The fuel burning equipment exemption in 9 VAC 5-80-1105 B.1 has been expanded to include space heaters. It reads as, “Fuel burning equipment units (external combustion units, not engines and turbines) *and space heaters* in a single application as follows:”
- e. Fuel burning equipment in nonattainment or maintenance areas - In ozone nonattainment areas designated in 9 VAC 5-20-204 or ozone maintenance areas designated in 9 VAC 5-20-203, the exemption thresholds [for fuel burning equipment] in 9 VAC 5-80-1105 B.1.a *shall be applied in the aggregate for each fuel type*. This is a clarification on when to aggregate these types of units.

- f. Emergency generator and turbines (clarification) - Engines and turbines that are used for emergency purposes only and that do not *individually* exceed 500 hours of operation per year at a single stationary source as follows. *All engines and turbines in a single application must also meet the following criteria to be exempt.* This is a clarification that engines and turbines used for emergency purposes only are evaluated individually and in a single application.
- g. Temporary facilities - Temporary facilities meeting the following conditions are exempt:
- i. The operational period of the temporary facility (the period from the date that the first pollutant-emitting operation is commenced to the date of shutdown of the temporary facility) is 12 months or less.
 - ii. The uncontrolled emissions rate of any regulated air pollutant that would be emitted from the temporary facility during the operational period does not exceed the applicable exempt emission rate as set forth in 9 VAC 5-80-1105 C (exemption rates for new stationary sources) or 9 VAC 5-80-1105 D (exemption rates for projects). The uncontrolled emission rate may be calculated based upon the total number of hours in the operational period instead of 8760 hours. All temporary facilities that will be co-located at a stationary source shall be considered in the aggregate when calculating the uncontrolled emissions.
 - iii. Upon completion of the operational period, the temporary facility shall be either (i) shut down in accordance with 9 VAC 5-20-220 or (ii) returned to its original state and condition unless, prior to the end of the operational period, the owner demonstrates in writing to the satisfaction of the board that the facility is exempt under 9 VAC 5-80-1105 C (exemption rates for new stationary sources) or D (exemption rates for new stationary projects) using 8760 hours of operation per year.
 - iv. Not less than 30 calendar days prior to commencing the operational period, the owner shall notify the board in writing of the proposed temporary facility and shall provide (i) calculations demonstrating that the temporary facility is exempt under this subdivision and under 9 VAC 5-80-1105 E and F; and, (ii) proposed dates for commencing the first pollutant-emitting operation and shutdown of the temporary facility.
 - v. The owner shall provide written notifications to the board of (i) the actual date of commencing the first pollutant-emitting operation and (ii) the actual date of shutdown of the temporary facility. Notifications shall be postmarked not more than 10 days after such dates.
- h. Open pit incinerators subject to the Open Burning regulations - Open pit incinerators subject to 9 VAC 5-130, Regulation for Open Burning (9 VAC 5-130-10 et seq.) and used solely for the purpose of disposal of clean burning waste and debris waste are exempt.

- i. Poultry and swine incinerators - Poultry or swine incinerators located on a farm are exempt if all of the following conditions are met:
 - i. Auxiliary fuels for the incinerator unit shall be limited to natural gas, liquid petroleum gas, and/or distilled petroleum liquid fuel. Solid fuels, waste materials, or residual petroleum oil products shall not be used to fire the incinerator.
 - ii. The waste incinerated shall be limited to pathological waste (poultry or swine remains). Litter and animal bedding or any other waste materials shall not be incinerated.
 - iii. The design burn rate or capacity rate of the incinerator shall be 400 pounds per hour or less of poultry or swine. This value shall apply only to the mass of the poultry or swine and shall not include the mass of the fuel.
 - iv. The incinerator shall be used solely to dispose of poultry or swine originating on the farm where the incinerator is located.
 - v. The incinerator shall be owned and operated by the owner or operator of the farm where the incinerator is located.
 - vi. The incinerator shall not be charged beyond the manufacturer's recommended rated capacity.
 - vii. Records shall be maintained on site to demonstrate compliance with the conditions for this exemption, including but not limited to the total amount of pathological waste incinerated and the fuel usage on a calendar year quarterly basis.

In conclusion, the minor NSR permitting manual will be updated to include all these changes in the revised Article 6.

Questions or comments on this guidance should be directed to the Office of Air Permit Programs.