

Greenhouse Gas Emissions Permitting Guidance

Introduction

Over the last few years, EPA has taken several actions in order to regulate greenhouse gases (GHGs). As a result of these actions, regulations began to apply to GHG emissions on January 2, 2011. In order to implement these regulations, the Oklahoma Department of Environmental Quality (DEQ) made necessary rule changes in order to implement these new regulations. This guidance is intended to assist permit applicants in addressing permitting requirements for GHGs.

History

EPA began the process of regulating GHGs on December 9, 2009 when EPA issued an “endangerment finding.” This finding clarified EPA’s position that elevated atmospheric concentrations of six well-mixed GHGs, taken in combination, endanger both public health and welfare and that the combined emissions of these GHGs from new motor vehicles cause and contribute to the air pollution that endangers public health and welfare. These findings did not themselves impose any requirements to control GHG emissions, but they were a prerequisite to finalizing GHG standards for vehicles under Title II of the Clean Air Act (CAA). On May 7, 2010, EPA issued a final rule – the Light-Duty Vehicle Rule (LDVR) – establishing national GHG emissions standards for vehicles under the CAA. These standards apply to new passenger cars, light-duty trucks, and medium-duty passenger vehicles, starting with model year 2012.

Under EPA interpretation, a pollutant becomes “subject to regulation” (for all programs under the CAA) on the any rule adopted by EPA under the CAA to actually control emissions of that pollutant “takes effect” or becomes applicable to the regulated activity. Since the LDVR was finalized for model year 2012 vehicles, the GHG requirements of the LDVR took effect on January 2, 2011. Thus, under EPA’s interpretation of the CAA and applicable rules, permitting requirements of the Prevention of Significant Deterioration (PSD) and Title V (TV) permitting programs became applicable to GHG emission sources effective January 2, 2011.

Prior to this effective date, EPA recognized that the existing permitting program structures under PSD and TV were not set up to regulate GHGs. Therefore, EPA took steps to issue a specific rule to adjust existing rule language to better deal with GHGs. This final rule was issued on June 3, 2010 and is commonly referred to as the “Tailoring Rule.” The Tailoring Rule enables EPA and states to phase in permitting requirements in a more common sense manner by focusing the permitting requirements on the largest sources with the most CAA permitting experience. It is estimated by EPA that, under the Tailoring Rule, facilities responsible for nearly 70 percent of the national GHG emissions from stationary sources would be subject to permitting requirements beginning in 2011, including the nation’s largest emitters (i.e. power plants, refineries, and cement production facilities). Emissions from small farms, churches, restaurants, and small commercial facilities are examples of source types that are not likely to be covered by these programs under the Tailoring Rule.

As a result of the actions taken by EPA to regulate GHGs under the CAA, tight timelines, and the need to implement GHG regulation in a common sense manner, ODEQ made emergency regulatory changes to meet the January 2, 2011 deadline. Specifically, ODEQ made emergency rule changes to Oklahoma Administrative Code (OAC) Title 252, Chapter 100 Subchapters 7 and 8 (OAC 252:100-7 and OAC

252:100-8, respectively) which became final on December 27, 2010. These actions were made to implement the Tailoring Rule. With minor adjustments, these changes were made permanent effective July 1, 2011.

Permitting Guidance under the Minor Source Program

Most of the facilities that meet emissions levels to qualify as a minor source under OAC 252:100-7 for regulated pollutants other than GHGs will not be affected by the GHG regulations. However, certain facilities may be impacted. Because of this, all facilities should take into consideration their GHG emissions when reviewing permit rule applicability. ODEQ is currently only requesting GHG emission estimates for minor source permit applications on a case-by-case basis, based on the equipment being proposed by the applicant.

Should a facility determine there is a need to take an enforceable permit limit to avoid applicability of either the PSD or TV program, the facility should request such in a permit application. In order to avoid TV applicability, the enforceable limit must be contained in a final issued permit prior to July 1, 2012. Once the enforceable limit is requested, the final permit would include GHG limits in terms of carbon dioxide equivalent (CO₂e), with appropriate monitoring and recordkeeping requirements.

GHG Permitting Guidance under the PSD Program

On January 1, 2011, Step 1 of the Tailoring Rule and requirements under OAC 252:100-8 took effect. Under Step 1, GHGs needed to be considered only if the new facility or modification to an existing facility resulted in emissions of a regulated pollutant other than GHG above a PSD threshold. On July 1, 2011, Step 2 of the Tailoring Rule and requirements under OAC 252:100-8 took effect. Under Step 2, all new PSD facilities and existing PSD facilities proposing to make modifications must consider GHG emissions in their regulatory review regardless of proposed emission levels of other regulated pollutants. Therefore, GHG emissions estimates must be supplied with any required permit application and GHGs must be independently considered when a facility determines PSD applicability.

Should an owner/operator determine a new facility will have the Potential-To-Emit (PTE) above the GHG threshold, the owner/operator may request a federally enforceable limit to avoid PSD review for GHG. If the owner/operator determines they are unable to make such a request, an application should include a PSD review of GHGs (including a case-by-case Best Available Control Technology (BACT) determination).

Similarly, an owner/operator of an existing PSD facility proposing a modification should also determine if the project will result in GHGs above the PSD significance level or if a permit limit is needed to avoid PSD permitting applicability.

GHG Permitting Guidance under the Title V Program

Similar to the PSD program, the TV program was affected by Step 1 and Step 2 of the Tailoring Rule. Both Step 1 and Step 2 requirements of the Tailoring Rule took effect under OAC 252:100-8 on January 1, 2011 and July 1, 2011, respectively. Under Step 1, GHGs needed to be considered only if the new facility resulted in emissions of a regulated pollutant other than GHG above a TV threshold. Under Step 2, all new facilities must consider GHG emissions in their regulatory review regardless of proposed emission levels of other regulated pollutants. Therefore, GHG emissions must now be considered when determining TV applicability.

OAC 252:100-8 also contains a requirement to apply BACT controls to any pollutant that is proposed to be emitted at TV major source levels for any new facility or when proposing to add emissions at TV major source levels during a modification. Since the TV and PSD thresholds for GHG are the same, no specific BACT requirement for GHG is required under Subchapter 8 other than the BACT requirement under OAC 252:100-8 Part 7.

Existing facilities that did not require a TV permit prior to July 1, 2011, but have existing GHG emissions above the GHG TV threshold must now apply for a TV permit or incorporate a GHG limit below the TV threshold into a federally enforceable permit. For facilities getting a TV permit, an application must be submitted by July 1, 2012. For facilities proposing to take a permit limit, a final issued permit containing the limit must be issued prior to July 1, 2012.

After November 1, 2011, all TV and TV renewal applications should contain GHG emission estimates similar to other regulated pollutants. Modifications to TV permits should include GHG emissions estimates resulting from the change only. Applicants should use existing applications forms since no special forms are necessary.

Summary

Step 2 of the Tailoring rule became effective on July 1, 2011, therefore, TV and PSD applicability can now be triggered based on GHG emissions alone. Facilities should now be evaluating GHGs for permitting and regulatory applicability, under the TV and PSD programs. As of November 1, 2011, GHG emission estimates should be included in all TV and TV renewal applications, including any modification application. To avoid TV applicability, facilities need to have an issued permit containing an appropriate limit prior to July 1, 2012.

Existing application forms will suffice for any necessary permitting action.