

**Michigan's Implementation of the Clean Air Act Requirements
For Greenhouse Gases
September 3, 2010**

Regulatory Background

In 2007, the United States Supreme Court found that greenhouse gases (GHGs) are air pollutants under the Clean Air Act (CAA). The Supreme Court ordered the United States Environmental Protection Agency (EPA) to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.

In late 2009, EPA declared that GHGs constitute a threat to human health and welfare and proposed new national standards for light-duty vehicles to reduce GHG emissions and improve fuel economy. Under the CAA, once GHGs from vehicles are "subject to regulation," EPA is required to regulate GHGs from stationary sources such as manufacturing facilities and power plants. It is important to note that absent EPA's action, automakers faced the real possibility of individual state standards for light-duty vehicles.

The EPA and the Department of Transportation's National Highway Traffic Safety Administration finalized the light-duty vehicle rule on May 7, 2010. These new requirements for mobile sources will be in effect on January 2, 2011. This becomes the trigger date for the air permitting requirements for stationary sources.

**Air Permitting - Prevention of Significant Deterioration (PSD)
and Title V Programs**

The CAA and state laws apply to all sources of air emissions and there are specific regulatory programs for large (major) sources. In Michigan, the Department of Natural Resources and Environment (DNRE) is authorized and responsible for issuing construction permits for major sources under the Prevention of Significant Deterioration (PSD) permitting program and issuing renewable operating permits for major sources under the CAA's Title V program.

The PSD program applies to major sources having emissions of greater than either 100 or 250 tons per year, depending on the type of source. Under the PSD program, a major source cannot begin construction until a permit is issued. In Michigan, 10 to 15 PSD permits are issued each year. Nearly 680 permits are issued nationwide.

Title V permits are issued to existing major sources with potential emissions greater than 100 tons per year. The purpose of a Title V permit is to gather into one permit all air requirements for a source and impose conditions necessary to assure compliance with those requirements, such as monitoring, recordkeeping, and reporting. These permits are renewed every five years. Michigan has approximately 400 Title V major sources and there are 15,000 nationwide.

Tailoring Rule

Emissions of GHGs are not on the same scale as other air pollutants. A source with annual emissions of 100 tons of a traditionally regulated pollutant may have GHG emissions well over 100,000 tons per year. To avoid an overwhelming number of sources subject to the PSD and Title V permitting requirements, EPA promulgated the Tailoring Rule on June 3, 2010. The Tailoring Rule is designed to fit a different magnitude of air emissions into the existing regulatory structure. The Tailoring Rule defines "subject to regulation" and adds GHG emission criteria to determine whether or not a source meets the definition of major source under the PSD and Title V programs.

The GHG criteria are based on the tons per year of carbon dioxide equivalents, or CO₂e. The CO₂e are calculated by multiplying the mass emissions of any of the six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs and SF₆) by the Global Warming Potential of that pollutant. The Global Warming Potentials are set by EPA. The sum of the CO₂e for a source is then compared to the applicable CO₂e-based applicability thresholds for the PSD and Title V programs.

The EPA estimates that without the Tailoring Rule, the nationwide number of PSD permits would be nearly 82,000 per year. Implementing the Tailoring Rule will reduce the number of PSD permits to around 1,600 per year. The numbers for the Title V permits are even more staggering as EPA estimates over 6 million permits without the Tailoring Rule and slightly over 15,000 permits with the rule implementation.

Michigan Law

For PSD permits, implementation of EPA's definition of "subject to regulation" is allowed under current Michigan law. Therefore DNRE can implement the Tailoring Rule provisions for PSD under current state rules.

For Title V permits, Michigan's definition of major source does not include a provision to regulate GHGs. Therefore a state rule change is needed for Michigan to issue Title V permits for GHG major sources. Without a rule change, EPA will be the permitting authority for GHG major sources and the DNRE will be the permitting authority for all other Title V subject sources. Companies would have to determine which agency (EPA or the DNRE) is the appropriate permitting agency. The DNRE is working on a revision to the state rules to provide a mechanism of Title V permitting for GHG sources.

Tailoring Rule Timeline

EPA has included a phase-in of the provisions of the Tailoring Rule:

Step 1

January 2, 2011

PSD - Any facility with GHG emissions (CO₂e) greater than 75,000 tons per year and needing a PSD permit because of other pollutants will need to address GHGs

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in the permit review. The impact is immediate. This category has been referred to as the "anyway PSD sources."

Title V - Any facility that has GHG emissions (CO₂e) and already has a Title V permit because of other regulated pollutants will need to include any applicable GHG requirements at the time of permit renewal. The DNRE is the permitting authority for these Title V permits. No new Title V permits are required solely due to GHG emissions.

Step 2

July 1, 2011

PSD – The requirements of PSD apply for the following sources:

- All PSD sources identified in Step 1.
- Any facility with GHG emissions (CO₂e) 100,000 tons per year or greater, provided that it also emits GHGs or some other regulated pollutant above the 100/250 ton per year (mass basis) PSD thresholds.
- An existing source with proposed modifications that will result in a net GHG emissions increase of 75,000 tons per year or more of CO₂e, provided that there is also an increase of GHG emissions on a mass basis.

Title V – The following sources are subject to the provisions of Title V:

- All Title V sources identified in Step 1.
- All facilities with potential GHG emissions (CO₂e) of 100,000 tons per year or greater, provided that the facility also emits or has the potential to emit GHGs above 100 tons per year on a mass basis.

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PSD – No new requirements

Title V

- All facilities with the potential to emit GHG emissions (CO₂e) of 100,000 tons per year or greater must have submitted a Title V application. Unless Michigan's rule is changed, the permitting authority for these permits would be EPA.

Step 3

July 1, 2012

The EPA commits to complete another rulemaking to address the remainder of the sources.