

**ExxonMobil Chemical Company,  
Baytown Olefins Plant, Ethylene Unit Addition GHG PSD PERMIT  
(PSD-TX-102982-GHG)**

**ExxonMobil's Request to EPA for PSD Permit Rescission**

**Basis of Decision**

March 9, 2016

In a letter dated January 22, 2016, ExxonMobil Chemical Company, Baytown Olefins Plant (ExxonMobil) requested that the U.S. Environmental Protection Agency, Region 6 rescind the EPA-issued Prevention of Significant Deterioration (PSD) greenhouse gas (GHG) permit issued on November 25, 2013. The permit was issued based on the applicability provisions described, at the time of permit issuance, at 40 CFR § 52.21(b)(49)(v)(b).

### **Background**

ExxonMobil requested rescission of its GHG PSD permit because its Baytown Olefins Plant, Ethylene Unit Addition was classified as a Step 2 source. Generally speaking, Step 2 sources are sources that were classified as major, and required to obtain a PSD or title V permit, based solely on GHG emissions. Such sources are generally known as Step 2 sources because EPA deferred the requirements for such sources to obtain PSD and title V permits until Step 2 of its phase-in of permitting requirements for GHG under the PSD and title V GHG Tailoring Rule, 75 FR 31514, 35569-71 (June 3, 2010); 40 CFR § 52.21(b)(49)(v). In *Utility Air Regulatory Group (UARG) v. Environmental Protection Agency*, 134 S. Ct. 2427 (2014), the Supreme Court held that EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or title V permit and thus invalidated regulations implementing that approach. EPA issued a direct final rule to narrowly amend the permit rescission provisions in the federal PSD regulations and the rulemaking became effective on July 6, 2015.

The newly effective federal rescission rule allows for the rescission of EPA-issued Step 2 PSD Permits and generally applies to new and modified stationary sources that obtained an EPA-issued Step 2 PSD permit under the federal PSD regulations found at 40 CFR 52.21 solely because the source or a modification of the source was expected to emit or increase GHG emissions over the applicable thresholds. This includes (1) sources classified as major for PSD purposes solely on the basis of their potential GHG emissions; and (2) sources emitting major amounts of other pollutants that experienced a modification resulting in an increase of only GHG emissions above the applicable levels in the EPA regulations.

EPA expects GHG PSD permit-holders that are interested in qualifying for the rescission of an EPA-issued Step 2 PSD permit under 40 CFR 52.21(w) to provide information to demonstrate that either (1) the source did not, at the time the source obtained its EPA-issued Step 2 PSD permit, emit or have the potential to emit any regulated pollutant other than GHGs above the major source threshold applicable to that type of source; or (2) a modification at a source emitting major amounts of a regulated NSR pollutant other than GHGs did not result in an increase in emission of any regulated pollutant other than GHGs in an amount equal to or greater than the applicable significance level for that pollutant. EPA

also considers in its evaluation if the source intends to rely on the EPA-issued Step 2 PSD permit for any other regulatory purpose.

For EPA-issued Step 2 PSD permits for Texas industry, EPA Region 6 retained the permitting authority for those sources in the recent final SIP and FIP actions (November 10, 2014) for Texas GHG PSD permitting. Under this authority, EPA Region 6 reviews and issues rescissions for EPA Region 6-issued Step 2 GHG PSD permits. From January 2, 2011 until November 10, 2014, EPA issued GHG PSD permits for facilities in the State of Texas. EPA approved the Texas GHG Permitting program on November 10, 2014, and Texas is currently the permitting authority for GHG PSD permits. EPA's action to rescind Step 2 PSD permits applies only to GHG PSD permits that were issued by EPA between January 2, 2011 and November 10, 2014.

## **REVIEW**

ExxonMobil has included in the January 22, 2016 rescission request information to demonstrate:

1) At the time of issuance of the EPA GHG PSD permit, the modification at the existing major source did not result in a significant increase in emissions of any regulated New Source Review (NSR) pollutant other than GHGs. The Texas Commission on Environmental Quality (TCEQ), as the current permitting authority for non-GHG and GHG pollutants, issued a Plantwide Applicability Limit (Permit No. PAL6) for Volatile Organic Compounds (VOC), Nitrogen Oxides (NO<sub>x</sub>), Particulate Matter (PM), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO) and Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) in an amendment to Flexible Permit No. 3452, issued on August 24, 2005. The permit special conditions and the maximum allowable emission rate table (MAERT) associated with the TCEQ minor NSR permit (Permit No. 102982) demonstrates that the project has been reviewed for the maintenance of the National Ambient Air Quality Standards (NAAQS), federal, state and local requirements, and the non-GHG emission levels associated with the project did not change or increase the existing allowable emission rates in the PAL permit. The proposed allowable emission rates<sup>1</sup> established in the TCEQ permits PAL6 and TCEQ permit No. 102982 are as follows: PM = 90.54 TPY; PM<sub>10</sub> = 78.58 TPY; PM<sub>2.5</sub> = 73.45 TPY; VOC = 224.14 TPY; NO<sub>x</sub> = 235.59 TPY; CO = 931.16 TPY; SO<sub>2</sub> = 22.47 TPY; H<sub>2</sub>SO<sub>4</sub> = 0.39 TPY; and NH<sub>3</sub> = 82.77 TPY, which will be managed below the corresponding PALs along with all other covered emissions at the plant.

2) ExxonMobil has asserted to EPA that the EPA-issued GHG PSD permit is not used, or planned to be used, for any other regulatory or compliance purpose and the information contained in the rescission request to EPA is factual and correct.

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<sup>1</sup> Project emissions are based on the review and analysis contained in the TCEQ Technical Review document written by Mr. Kyle Virr, TCEQ, for ExxonMobil Chemical Company, Baytown Olefins Plant, Ethylene Production Unit Project, RN102212925, CN600123939 and Project Number 178224. TCEQ represented in its analysis for issuance of the minor NSR permit (TCEQ Permit No. 102982) that no federal applicability review is required for this project because the project will have no increases to the established PALs.

## **RECOMMENDATION**

Based on the information provided to EPA Region 6 on January 22, 2016, ExxonMobil has provided sufficient information to support the required rescission elements outlined in 40 CFR § 52.21(w)(2). EPA's recommendation is to approve the rescission request and authorize publication of the public notice announcing the approval of the rescission.