

Air Quality Update

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EPA'S TAILORING RULE FOR GHG PERMITTING

Beginning January 2, 2011, the US EPA will begin implementation of permitting for Greenhouse Gas (GHG) emissions from Major Sources. Specifically, new or modified major stationary sources that meet emissions applicability thresholds will be required to obtain a PSD permit outlining how they will control GHG emissions. PSD requires facilities to apply Best Available Control Technology (BACT), which is determined on a case-by-case basis taking into account, among other factors, the cost and effectiveness of the control.

From January 2 – June 30, 2011, sources that are subject to Prevention of Significant Deterioration (PSD) or Title V for other pollutants (e.g., NO_x, VOCs, PM₁₀, etc.) will trigger GHG BACT requirements if the source exceeds CO₂ equivalent (CO₂e) increases of 75,000 tons per year.

Starting July 1, 2011, PSD permitting requirements will be required, regardless of other pollutant emissions, for all:

- New projects with emissions $\geq 100,000$ tpy of CO₂e, or
- Modifications at an existing Major Source with an increase $\geq 75,000$ tpy of CO₂e.

Title V permitting will be required for all new and existing facilities with a potential to emit $\geq 100,000$ tpy of CO₂e. For facilities that are not now in Title V, either because they are Minor Sources or because they have taken emission limits to stay out

of Title V, they may have to apply for and obtain a Title V permit solely due to CO₂e emissions. These applications will be due after July 1, 2011 but before July 1, 2012, depending upon when the local district sets its deadlines.

For existing Title V facilities, any new sources or modifications to existing sources after January 2, 2011 will trigger GHG BACT and other requirements if the addition exceeds 75,000 tpy of CO₂e.

To accommodate this new permitting requirement, there may be a number of additional changes made:

- The local districts will likely have to modify their permitting rules and regulations to incorporate the GHGs;
- Annual reporting may require GHG reporting to quantify GHG emissions and Title V applicability for all sources; and
- CA AB32 requirements may be incorporated into Title V permits.

Figure 1. Tailoring Rule GHGs

Final Rule Group of Six GHGs	CO ₂ Equivalents*
Carbon dioxide (CO ₂)	1
Methane (CH ₄)	21
Nitrous oxide (N ₂ O)	310
Hydrofluorocarbons (HFCs)	12-11,700**
Perfluorocarbons (PFCs)	6,500-17,340**
Sulfur hexafluoride (SF ₆)	23,900

* Values per Table A-1 to Subpart A of Part 98
** Depending upon the exact compound

The EPA will also be developing GHG BACT guidelines and additional rulemaking for smaller facilities. Below is a link to the EPA fact sheet, related information, and the rule language:

<http://www.epa.gov/nsr/actions.html#may10>

Air Quality Tip....

Air District Inspectors are sent out to ensure compliance and one of the first things they will look for are records required by the air permit or the source specific rules. Facilities that make a complete list of all the records required and then review their records internally on a quarterly basis will do much better when the air district comes to inspect.

Upcoming Training Offered by Yorke Engineering:

- San Joaquin Air Quality Permitting and Compliance Seminar: March 17th, 2011
<http://www.yorkeengr.com/classes.htm>

Upcoming Due Dates:

- Title V – Report of Required Monitoring semi-annually*
- CARB LSI Fleet Ave. Emission Reduction; 1/1/2011
- CARB GHG Reporting; 4/1/2011 (or 6/1/2011 for certain sources)
- USEPA GHG Report; 3/31/2011
- USEPA GHG Electronic Reporting Tool Reg.; 1/30/2011
- Title V – Compliance Cert. annually, and Semiannual Monitoring Report*
- Title V – Application for Initial Permit for newly affected facilities in SJV 6/10/11
- Title V – Application for Permit Renewal due 180 days prior to permit expiration.
- Emission Inv. Survey 6/1/11

*For all Title V facilities, your initial permit issuance date is designated as the beginning of the reporting period.

SAN JOAQUIN VALLEY APCD RULE CHANGES ADOPTED

For full details on rule adoptions go to:
http://www.valleyair.org/rules/rules_recently_adopted.htm

- Rule 4653: Adhesives and Sealants (amended) – This rule was expanded to include sealants and sealant primers by establishing VOC limits effective January 1, 2012 and incorporate more stringent VOC limits for adhesives. The rule amendments also incorporated a sell-through period for the selling and application of the adhesive and sealant products manufactured prior to the effective date of the new VOC limits. These amendments will impact any person who supplies, sells, offers for sale, or applies any adhesive product, or associated solvents, for use within the San Joaquin Valley Air Basin. This summary only highlights some of the amendments of Rule 4653. A copy of the complete rule can be found at

<http://www.valleyair.org/rules/curmtrules/r4653.pdf>

- Rule 4354: Glass Melting Furnaces (amended) – This rule was amended to allow flat glass manufacturers to eliminate the Tier 3 NOx emission limits provided they meet the Tier 4 early enhanced emission limits by January 2014. For flat glass manufacturers that choose the Tier 4 early enhanced option, compliance with the SOx and PM limits would be deferred until January 2014. These amendments will only impact flat glass manufacturers.

This summary only highlights some of the amendments of Rule 4354. A copy of the complete rule can be found at

<http://www.valleyair.org/rules/curmtrules/Rule4354-0910.pdf>

- Rule 4570: Confined Animal Facilities (amended) – This rule was amended to remove all CAF mitigation measures related directly from the feed, except for dairies, beef feedlots and other cattle operations in order to incorporate recently completed emissions studies at California dairies that have indicated that dairy feed (primarily due to silage) is the most significant source of VOC. This rule is also amended to lower the regulatory threshold for dairy, chicken, and duck operations.

Figure 2. CAF Thresholds for Regulation

Livestock Category	Regulatory Threshold
Dairy	500 milking cows
Poultry Facility - Chicken	400,000 heads
Poultry Facility - Duck	400,000 heads

This summary only highlights some of the amendments of Rule 4570. A copy of the complete rule can be found at

http://www.valleyair.org/rules/curmtrules/R4570_102110.pdf

SAN JOAQUIN VALLEY APCD PROPOSED RULE CHANGES

For full details on proposed rule changes below go to:

http://www.valleyair.org/Workshops/public_workshops_idx.htm

- Rule 4565: *Composting and Related Operations* - This proposed new rule will establish VOC emission reduction requirements on the basis of actual throughputs, rather than allowable capacity limits, for large and medium facilities. The focus will be on finished compost cover for large

facilities and surface irrigation for medium facilities. This proposed new rule will impact the facilities in San Joaquin Valley that compost and stockpile organic material.

- Rule 4702: *Internal Combustion Engines – Phase 2 (amendments)* – The proposed amendments will establish the requirements for spark-ignited engines and compression-ignited engines rated at 25 to 50 brake horsepower (bhp) that are used exclusively in Non-Agricultural Operation operations (Non-AO). The proposed amendments will affect approximately 598 permitted Non-AO spark-ignited engines that are not emergency or low-use engines.

- Rule 2201: *New and Modified Stationary Source Review (amendments)* – The proposed amendments will incorporate the New Source Review Program for Particulate Matter Less than 2.5 Micrometers (PM2.5) to the rule and add the language describing the applicability of offsets for agricultural sources. These proposed amendments are to fulfill the federal Clean Air Act requirement for PM2.5 nonattainment areas, such as San Joaquin Valley Air Basin and address EPA's limited disapproval upon the agricultural permitting requirements part of Rule 2201. The proposed amendments will require SOx and NOx to be regulated as precursors to PM2.5. The major source threshold for PM 2.5 will be set at 100 tons per year.

Yorke Engineering, LLC specializes in environmental and air quality consulting for stationary and mobile sources including permitting, GHG reporting, air quality compliance systems, dispersion modeling, health risk assessments, etc. Yorke Engineering has over 200 customers including a wide variety of industrial facilities and government organizations throughout California.

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