

Air Quality Update

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CARB MOBILE SOURCE RULES

The California Air Resources Board (CARB) is responsible for regulating mobile sources and has promulgated a number of new rules over the past few years. We are seeing some industrial facilities that are still not aware of these CARB rules. Enclosed is a short review of the established Off-Road Large Spark Ignition (LSI) Equipment regulation that may affect your facility. For diesel vehicles, the Off-road Diesel Vehicle Regulation applies which will be covered in a subsequent Air Quality Update.

LARGE SPARK-IGNITION (LSI) ENGINE FORK LIFT RULE

The LSI engine forklift regulation applies to any business or agency that owns or operates gasoline, propane, or CNG off-road LSI fleets in California.

This CARB LSI rule has many provisions, but the one that has the greatest impact on most industrial facilities is the forklift fleet average emission requirement. The requirement levels are shown in the table below (for forklifts over 25 hp):

Required Grams/KWH Fleet Average Emission Levels

Fleet Type	# of Units	Jan 1 2009	Jan 1 2011	Jan 1 2013
Forklift	26+	3.2	2.3	1.5
Forklift	4-25	3.5	2.7	1.9

For the LSI rule, a fleet is defined as more than three units in each of the following categories: forklift, sweeper/scrubber, airport GSE, and industrial tow tractors. As an example, 3 forklifts and 2 sweepers

would still not be considered a fleet. The determination of the fleet size will include multiple facilities if the procurement decisions and/or budgeting occur at a higher echelon such as a corporate headquarters. Electric forklifts are counted in the fleet size also which helps reduce the average emissions since they are considered to have zero emissions.

Companies are required to take an inventory of equipment that falls into the fleet category including the type, make, model, serial number and emission certification standard. After the fleet is defined, the rule requires the calculation of the fleet average emissions to compare with the required fleet average for compliance. Depending on the average there may be a requirement to retrofit some or all of the units with equipment such as catalytic converters. The modifications are required to be completed by the rule compliance dates. Flexibility to the January 1, 2009 deadline has been given to allow retrofits to occur by the end of 2009 as long as a purchase order was issued by March 31, 2009.

The LSI rule (section 2775.2) requires that the facility keep records of fuel usage specifications and proof that the fleet meets the average emission level standard (section 2775.1(a)). There are exemptions from the rule that apply to the calculations and applicability.

Below are a few links to CARB fact sheets and the rule language:

http://www.arb.ca.gov/msprog/offroad/or_spark/documents/lsioverviewfs.pdf

http://www.arb.ca.gov/msprog/offroad/or_spark/documents/lsifleetaveragefs.pdf

Air Quality Tip....

Did you know that a list of your air permits and the status of any open applications is listed on the SCAQMD website through the "FIND" feature? This feature will allow you to create a list of your active and cancelled equipment permits. To see if your permits are listed go to www.aqmd.gov under community/ public information /facility info search (FIND). All you need is your company name or your SCAQMD facility ID. Once in, click on the "Equipment List" link to see your facility's listing!

Upcoming Training Offered by UCI or Yorke Engineering:

- South Coast Air Quality Permitting and Compliance Seminar: October 6 & 7th, 2009
<http://www.yorkeengr.com/classes.htm>
- UCI Climate Protection and Environmental Sustainability: Fall 2009
<http://unex.uci.edu/courses/>

Upcoming Due Dates:

- RECLAIM APEP (Cycle 2) 8/29
- Title V – SAM 8/31
- Title V - Certification (RECLAIM Cycle 2 only) 8/29
- SCAQMD Rule 1110.2 Quarterly report 10/15
- Title V – Application for Permit Renewal due 180 days prior to permit expiration.

All due dates listed are the statutory dates; sometimes dates are extended when they fall on a day the agency is closed.

FACILITY MODERNIZATION EXPLORING SCAQMD RULE 1147

On December 5, 2008 the SCAQMD adopted Rule 1147 – *NOx Reductions from Miscellaneous Sources*. The main purpose of the rule is to reduce NOx emissions from miscellaneous gaseous- and liquid-fueled combustion equipment that are not regulated by other existing Regulation XI rules (e.g., Rules 1109, 1111, 1146, 1110.2, etc.). Examples of equipment subject to the rule include: furnaces, cookers, roasters, fryers, afterburners, catalytic or thermal oxidizers, and incinerators.

Primarily, the rule sets NOx limits on new and existing NOx sources. Starting January 1, 2010, new and modified equipment must meet the NOx limits listed in Table 1 of the rule, which typically range between 30-60 ppm @3% O₂. For existing sources, the compliance dates are listed in Table 2, of which the earliest compliance date is July 1, 2010. In order to demonstrate compliance an owner/operator must conduct an SCAQMD approved source test by the date listed in Table 2. If modification of the equipment is necessary in order to meet the emission limits, permit applications must be filed well in advance and construction completed in order to meet the source test deadline.

Other requirements under the rule include combustion system maintenance, and fuel and timer meter installations. Starting on January 1, 2010, all owner/

operators of applicable equipment must perform combustion system maintenance in accordance with the manufacturer's written instructions and specifications. A copy of these instructions and all maintenance records and source test reports must be retained on site for a minimum of three years. Additionally, the rule requires owner/operators to install a non-resettable totalizing timer and fuel meter on each unit's fuel line by January 1, 2011.

This summary only highlights some of the requirements of Rule 1147. A copy of the complete rule can be found at www.aqmd.gov/rules/reg/reg11/r1147.pdf

If you own or operate any equipment subject to this rule, please read through the rule to determine the requirements that apply to your facility.

SOUTH COAST AQMD RULE CHANGES ADOPTED

For full details on rule adoptions go to: <http://aqmd.gov/rules/recentrules.html>

- Rule 1401: *NSR of TAC's* (amended) The change added a cancer risk value for ethyl benzene to the list of toxic air contaminants (TACs) in Rule 1401.
- Rule 433: *Natural Gas Quality* (new) This rule requires monitoring of the energy content of natural gas by the "distribution system operators" conveying natural gas to

end users.

- Rule 1171/1122: *Solvent Cleaning Operations and Solvent Degreasers* (amended) The proposed amendments extend the compliance date for the use of low-VOC solvents for clean-up of lithographic ultraviolet/electron beam ink application equipment and on-press screens in screen printing. The proposal also exempts certain specialized, small usage, low emission applications and provides other clarifying language in Rules 1171 and 1122

SOUTH COAST AQMD RULE CHANGES PROPOSED

For full details on proposed rule changes below go to: <http://www.aqmd.gov/rules/proposed.html>

- Rule 317: *Clean Air Act Non-Attainment Fees* (Amended)- This proposed amendment would raise fees on major stationary sources that do not mitigate emissions of VOC's or NOx below 80% of the source's baseline emissions.
- Rule 1145: *Plastic, Rubber, Leather, and Glass Coatings* (amended)- This older rule is being amended to revise the VOC limit for multi-color coatings, establish a new category for coating refrigerated glass doors, deleting (c)(3) which allows automotive coatings in certain situations.
- Rules 1315 and 1309.2: *New Source Review Tracking System; and the Offset Budget* (Amended)

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

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