

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER THE PROPOSED AMENDMENT OF THE AIRBORNE TOXIC CONTROL MEASURE FOR IN-USE DIESEL-FUELED TRANSPORT REFRIGERATION UNITS (TRU) AND TRU GENERATOR SETS, AND FACILITIES WHERE TRUs OPERATE

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider the adoption of amendments to the regulation affecting transport refrigeration units (TRU) and TRU generator sets (TRU gen set) (collectively, TRUs and TRU gen sets shall be referred to as TRUs).¹ As explained in greater detail below, the proposed amendments would change the in-use performance standards for model year (MY) 2003 and certain 2004 TRU engines. The Board will also be considering amendments that would clarify the requirements for “flexibility” engines used in TRUs by original equipment manufacturers under the Transitional Program for Equipment Manufacturers and would require TRU original equipment manufacturers to report certain TRU production data.

DATE: November 18, 2010

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium
1001 I Street
Sacramento, California 95814

This item may be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., on Thursday, November 18, 2010, and may continue at 8:30 a.m., Friday, November 19, 2010. This item may not be considered until Friday, November 19, 2010. Please consult the agenda for the meeting, which will be available at least ten days before November 18, 2010, to determine the day on which this item will be considered.

INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW

Sections Affected: Proposed amendments to California Code of Regulations (CCR), title 13, Division 3, Chapter 9, Article 8, section 2477.

Background: Over 90 percent of Californians breathe unhealthful air at times. To improve air quality and human health, ARB establishes requirements to reduce

¹ Title 13, CCR section 2477 is known as the Transport Refrigeration Unit Airborne Toxic Control Measure and establishes in-use performance standards, recordkeeping, and facility reporting requirements for TRUs and TRU generator sets.

emissions from new and in-use on-road and off-road vehicles, engines, and other sources.

In 1998, the Board identified particulate matter emissions from diesel-fueled engines as a toxic air contaminant. Two years later, in September 2000, the Board adopted the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Plan). The Plan established a goal of reducing emissions and the resultant health risk from virtually all diesel-fueled engines and vehicles within the State of California by the year 2020. The Plan included a goal of reducing diesel PM by 85 percent in 2020 from the baseline emissions in 2000. The Plan also identified various control measures for achieving the goals. These measures included new, more stringent standards for all new diesel-fueled engines and vehicles, the replacement of older in-use engines with new, cleaner engines, the use of diesel emission control strategies on in-use engines, and the use of low-sulfur and alternative diesel fuels.

TRU diesel engines currently emit approximately 1.6 tons per day of diesel PM. Staff believes that there are situations where the estimated 70-year potential cancer risk resulting from exposure to diesel PM emissions from TRUs is in excess of a 100 in a million. This is because of the high cancer-causing potential of diesel PM and the potential for large numbers of TRUs to operate at one location, such as distribution centers located near residential areas.

On May 16, 2002, the Board approved the *Verification Procedure, Warranty and In-Use Compliance Requirements for In-Use Strategies to Control Emissions from Diesel Engines* (title 13 CCR, sections 2700-2710). This rule establishes procedures for the verification of diesel emission control strategies by ARB that can be applied on various diesel-fueled engines and vehicles to significantly reduce diesel PM emissions. It is important to reduce diesel PM emissions from TRUs. Health and Safety Code sections 39666 and 39667 requires the ARB to adopt regulations to achieve the maximum possible reduction in public exposure to TACs through the application of best available control technology (BACT), or a more effective control method, in consideration of cost, risk, environmental impacts, and other specified factors.

ARB adopted the TRU Airborne Toxic Control Measure (ATCM) in 2004. The TRU ATCM is part of ARB's ongoing effort to reduce PM emissions from diesel-fueled engines and vehicles and improve air quality. The TRU ATCM established in-use performance standards for TRUs and TRU gen sets that were to be phased in commencing on December 31, 2008. In March 2005, staff requested the U.S. Environmental Protection Agency (U.S. EPA) to grant authorization to ARB to adopt and enforce the TRU ATCM pursuant to Clean Air Act (CAA) section 209(e)(2). U.S. EPA granted California authorization on January 16, 2009. Because U.S. EPA's authorization was granted after the first compliance date, ARB delayed the enforcement of the TRU ATCM's in-use performance standards until January 2010.

ARB staff has prepared an Initial Statement of Reasons (ISOR) for the proposed amendments to the *Airborne Toxic Control Measure for In-Use Diesel-Fueled TRUs and TRU Gen Sets, and Facilities where TRUs Operate*.

Description of the Proposed Regulatory Action:

ARB staff is proposing to amend the TRU ATCM that the Board approved for adoption on February 26, 2004, and became effective December 10, 2004. The primary purpose of the proposed amendments is to change the in-use performance standard for MY 2003 TRU engines in the 25 hp and greater category and MY 2003 and MY 2004 engines in the less than 25 hp category from the ultra-low-emission TRU (ULETRU) in-use performance standard to allow TRU owners to comply by either meeting the ULETRU standard or, as an option, the less stringent low-emission TRU (LETRU) in-use standard. The initial compliance deadlines for MYs 2003 and 2004 TRU engines are December 31, 2010 and December 31, 2011, respectively. The proposed amendments would also require that all MY 2003 and MY 2004 engines meet the ULETRU standard seven years after the initial compliance date (in 2017 or 2018).

Requirements for “flexibility” engines used in TRUs by original equipment manufacturers under the federal Transitional Program for Equipment Manufacturers and California’s equipment manufacturer flexibility program (title 13 CCR, section 2423(d)) would also be clarified to provide seven years of operational life to flexibility engines installed before the effective date of these amendments. Flexibility engines installed after that would have a shorter operational life under the amendments. In addition, the amendments would impose new reporting requirements on TRU original equipment manufacturers. A more detailed description of the proposed amendments is presented below.

Applicability

The proposed amendments would affect owners of TRUs and TRU gen sets that operate in California that are equipped with MY 2003 engines, regardless of horsepower category, and MY 2004 engines in the less than 25 hp category. This would include all TRU and TRU gen set owners, whether based in California or out-of-state, that transport perishable goods using refrigerated trucks, trailers, shipping containers, and railcars within the State. Most TRUs are owned or operated by corporations, businesses, and individuals. There are a few local municipalities, school districts, and correctional institutions that operate TRUs that may be affected. These amendments would affect the owners of TRUs and TRU gen sets equipped with “flexibility engines” and would also extend the applicability for new reporting requirements to TRU and TRU gen set original equipment manufacturers that directly or indirectly sell or offer for sale TRUs and TRU gen sets to the California market. There are currently only three affected TRU and TRU gen set manufacturers.

In-Use Emission Standard Amendment

The amendments would change the in-use standards for MY 2003 TRU and TRU gen set engines in the 25 hp and greater power category from the ULETRU in-use standard to allow either the ULETRU standard or, as an option, the less stringent LETRU in-use

standard. This change would provide owners with more compliance flexibility and is needed because ULETRU compliance options presently are limited and relatively costly compared to LETRU compliance costs. The compliance date for meeting one of these standards would remain December 31, 2010. Seven years later, by the end of 2017, the MY 2003 engines that are still remaining in service would be required to meet ULETRU if the owner chose to meet the LETRU standard in 2010.

The amendments would also change the in-use standard for MY 2003 and MY 2004 engines in the less than 25 hp category from the ULETRU in-use standard to allow either the ULETRU standard or, as an option, the LETRU in-use standard. The compliance dates would remain December 31, 2010, for MY 2003 engines and December 31, 2011, for MY 2004 engines, when the owner must choose to meet one of these standards. Seven years later, by the end of 2017, the MY 2003 engines that still remain in service would be required to meet the ULETRU standard if the owner chose to meet the LETRU standard in 2010. By the end of 2018, the MY 2004 engines that still remain in service would also be required to meet the ULETRU standard if the owner chose to meet the LETRU standard in 2011.

Flexibility Engines – “Effective Model Year”

The staff is also proposing to amend the requirements for “flexibility” engines that are used in TRUs by original equipment manufacturers under the federal Transitional Program for Equipment Manufacturers and California’s equipment manufacturer flexibility program². The amendments would clarify that flexibility engines installed before the effective date of the amendments would be provided a full seven years of operational life from the year of the engine’s manufacture before having to meet the more stringent ULETRU in-use performance standard. Flexibility engines installed after that date would have a reduced operational life given that compliance would be based on the last year that the flexibility engine’s tier standard was in effect.

As permitted under federal and State regulations, TRU and TRU gen set original equipment manufacturers (TRU OEMs) have installed “flexibility engines” that meet an emissions standard tier that is no longer in effect for new engines at the time that the equipment is manufactured.³

To date, TRU OEMs and engine manufacturers have not followed a consistent practice in identifying the model year of flexibility engines. While some manufacturers have identified the model year of these engines to be the year of manufacturer of the engine, others have identified the model year as being the last year that the emission standard tier of the flexibility engine was in effect for new engine certification (under the proposed amendments, this second designation is referred to as “effective model year”). The use

² Flexibility engines are new engines that are allowed under these programs to be certified to a lower emission standard than is otherwise in effect for new engines at the time of manufacture.

³ This is allowed for a limited number of engines under the federal Transitional Program for Equipment Manufacturers and California’s equipment manufacturer flexibility program (13 CCR, section 2423(d)) for several years after an emissions standard changes to a more stringent tier.

of the effective model-year designation has adversely impacted the operational life of TRUs under the TRU ATCM in that TRU owners must meet in-use performance standards seven years after the engine model year. The last year that a prior tier was in effect for new engine certification is typically one to two years before the manufacture date of the flexibility engine, resulting in the loss of up to several years of operational life. In most cases, owners have not been aware of this loss of operational life of the TRU engines that they have purchased.

To address this issue, staff is proposing that flexibility engines meeting a prior tier new engine standard would be allowed to use the actual engine manufacture year to determine in-use compliance requirements. For example, a Tier 1 engine installed in a TRU after the Tier 2 new engine emission standards became effective for new engines would be allowed to use the engine manufacture year to determine in-use compliance requirements. This would ensure that all TRUs with flexibility engines that are purchased before the effective date of these amendments receive a full seven years of operational life.

The amendments would further provide that flexibility engines installed in TRUs after the effective date of the amendments would be required to use the “effective model year” of the flexibility engine to determine future ULETRU compliance dates. As stated, the effective model year of the flexibility engine would be the last year that the flexibility engine’s tier standard was in effect for new engine compliance. Compliance with the in-use standards would then be required by the end of the seventh year after the effective model year of the flexibility engine. Using the effective model year for future flexibility engine use would discourage their use since operational life is affected. It would also result in dirtier, earlier tier flexibility engines being phased out sooner thereby ensuring that the emission reductions intended under the original TRU ATCM will be achieved as intended.

TRU OEMs would also be required to disclose to the end user at point of sale that the unit has a flexibility engine and that there is a loss of operational life associated with the use of flexibility engines. They must also provide the end user with the date that the engine must meet the ULETRU in-use standard.

TRU Manufacturer Reporting

Staff is proposing to amend the TRU ATCM to require that TRU OEMS report production information, including information on flexibility engines installed in TRUs. This reporting will ensure that manufacturers provide the data necessary for the proposed flexibility engine amendments, allow ARB to consider improvements to the TRU registration process, and more accurately estimate emissions inventories. TRU OEMs would be required to periodically report data on each TRU and installed engine produced in future model years. TRU OEMs would also be required to submit reports on TRU sales from previous years.

COMPARABLE FEDERAL REGULATIONS

There are no federal regulations comparable to the TRU ATCM for in-use TRUs. Under federal Clean Air Act (CAA) section 213, U.S. EPA is without authority to adopt in-use standards for off-road (non-road) engines.⁴

Section 209(e)(1) of the CAA conclusively preempts states, including California, from adopting requirements for new off-road engines less than 175 hp that are used in farm or construction equipment. Under section 209(e)(2), California may adopt and enforce emission standards and other requirements for off-road engines and equipment not conclusively preempted by section 209(e)(1), so long as California applies for and receives authorization from the Administrator of U.S. EPA. TRU engines are not used in farm and construction equipment and are thus not preempted. California requested and received authorization from U.S. EPA for the initially adopted TRU ATCM in January 2009.⁵

AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS

ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the potential environmental and economic impacts of the proposal. The report is entitled, *Proposed Amendment of the Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units and TRU Generator Sets, and Facilities Where TRUs Operate*.

Copies of the ISOR and the full text of the proposed regulatory language, in underline and strike-out format to allow comparison with the existing TRU ATCM, may be accessed on ARB's website listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990, on September 29, 2010.

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on ARB's website for this rulemaking at:

<http://www.arb.ca.gov/regact/2010/tru2010/tru2010.htm>.

Inquiries concerning the substance of the proposed regulations may be directed to the designated agency contact persons, Richard Boyd, Manager of the Process Evaluation Section, Emission Assessment Branch, Stationary Source Division, at (916) 322-8285, or Rod Hill, Staff Air Pollution Specialist, Stationary Source Division, at (916) 327-5636.

Further, the agency representative and designated back-up contact persons to whom nonsubstantive inquiries concerning the proposed administrative action may be directed, are Ms. Lori Andreoni, Manager, Board Administration & Regulatory

⁴ The California term "off-road" and the federal term "nonroad" refer to the same sources and are used interchangeably.

⁵ 74 Fed Reg 3030 (January 16, 2009).

Coordination Unit, (916) 322-4011, or Ms. Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on ARB's website for this rulemaking at www.arb.ca.gov/regact/2010/tru2010/tru2010.htm.

COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred by public agencies and private persons and businesses in reasonable compliance with the proposed regulations are presented below. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the Staff Report.

Costs or Savings to Businesses and Private Individuals

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. The amendments would result in compliance cost savings due to changing the in-use standard from ULETRU to either ULETRU or LETRU because the Level 2 Verified Diesel Emissions Control Strategies (VDECS) required to meet LETRU costs about \$2,000 less than the Level 3 VDECS required to meet ULETRU. The total compliance cost savings related to the in-use standard option would be about \$2.1 million in 2010 and 2011, assuming about 30 percent of the affected units will comply by retrofitting (30 percent of the MY 2002 engines complied by retrofitting, so staff assumed this trend would continue for MY 2003 and 2004 engines). However, to the extent that MY 2003 and MY 2004 engines comply by meeting the LETRU standard in 2010 and are still operating in 2017 and 2018, respectively, they would need to meet ULETRU standard in that year. This would potentially reduce compliance cost savings to a net savings of about \$300,000 in 2010 dollars. The proposed amendments do not affect the cost of repowering a unit with a cleaner engine to maintain compliance, which was the compliance option chosen for 65 percent of the 2002 units, nor the cost of using Alternative Technologies (such as hybrid electric), which was chosen as the compliance option by five percent of the TRU owners.

There are no end-user compliance costs related to the amendment addressing the past use of flexibility engines. The TRU OEMs, however, would incur costs related to flexibility engine reporting in 2010. Staff estimates these one-time costs would be about \$19,000, total in 2010 dollars.

The cost of compliance with the TRU OEM reporting amendment for current year and prior year production would be about \$25,000 for the initial one-time reports due soon after the amendments take effect and about \$8,000 per year for periodic update reports. Staff anticipates that the cost of preparing and submitting these will be reduced significantly as opportunities to automate this work are phased in.

The Executive Officer has made an initial determination that the proposed regulatory action would not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states, or on representative private persons.

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action would not affect the creation or elimination of jobs within the State of California, the creation of new businesses or elimination of existing businesses within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to California Code of Regulations, title 1, section 4, that the proposed regulatory action would affect small businesses because staff anticipates there will be cost savings if TRU and TRU gen set owners choose the retrofit compliance option. Compliance cost would not be affected if owners choose the repower option.

In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the Executive Officer has found that the reporting requirements of the regulation which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California.

Before taking final action on the proposed regulatory amendments, the Board must determine that no reasonable alternative considered by the Board, or that has otherwise been identified and brought to the attention of the Board, would be more effective in carrying out the purpose for which the action is proposed, or would be as effective and less burdensome to affected private persons than the proposed action.

Costs or Savings to Local and State Government Agencies

Pursuant to Government Code sections 11346.5(a)(5), the Executive Officer has determined that the proposed regulatory action would not create any costs to or mandates on any local agency or school district that is reimbursable by the State pursuant to Government Code, title 2, division 4, part 7 (commencing with section 17500).

Pursuant to Government Code sections 11346.5(a)(6), the Executive Officer has further determined, based on estimates prepared in accordance with instruction adopted by the Department of Finance, that the proposed regulatory action would not create additional costs to any State agency or to any local agency or school district, whether or not reimbursable by the State pursuant to Government Code, title 2, division 4, part 7 (commencing with section 17500), create other nondiscretionary costs on local agencies, and affect costs or savings in federal funding to the State.

Several local agencies, school districts, and State agencies own TRUs, so the compliance cost savings discussed above may apply to these agencies if they own MY 2003 TRU engines in the 25 hp and greater power category or MY 2004 TRU engines in the less than 25 hp category.

SUBMITTAL OF COMMENTS

Interested members of the public may also present comments orally or in writing at the meeting, and comments may be submitted by postal mail or by electronic submittal before the meeting. The public comment period for this regulatory action will begin on October 4, 2010. To be considered by the Board, written comments, not physically submitted at the meeting, must be submitted on or after October 4, 2010, and received **no later than 12:00 noon on November 17, 2010**, and must be addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

Please note that under the California Public Records Act (Gov. Code, § 6250 et seq.), written and oral comments, attachments, and associated contact information (e.g., your mailing address, phone number, email address, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

The Board requests, but does not require, that 20 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board members have time to fully consider each comment. The Board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

STATUTORY AUTHORITY AND REFERENCES

This regulatory action is proposed under the authority granted in Health and Safety Code, sections 39600, 39601, 39618, 39658, 39659, 39666, 39667, 39674, 39675, 42400, 42400.14, 42400.2, 42400.3.5, 42402, 42402.2, 42410, 43013, 43018. This action is proposed to implement, interpret, and make specific sections 39618, 39650, 39658, 39659, 39666, 39667, 39674, 39675, 42400, 42400.1, 42400.2, 42400.3.5, 42402, 42402.2, 42410, 40717.9, 43013, and 43018.

HEARING PROCEDURES

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Government Code, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340).

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with non-substantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text as modified is sufficiently related to the originally proposed text that the public was adequately placed on notice and that the regulatory language as modified could result from the proposed regulatory action; in such event, the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted.

The public may request a copy of the modified regulatory text from ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990.

SPECIAL ACCOMMODATION REQUEST

Special accommodation or language needs can be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format (i.e., Braille, large print, etc.) or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board hearing. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Comodidad especial o necesidad de otro idioma puede ser proveído para alguna de las siguientes:

- Un intérprete que esté disponible en la audiencia.
- Documentos disponibles en un formato alterno (por decir, sistema Braille, o en impresión grande) u otro idioma.
- Una acomodación razonable relacionados con una incapacidad.

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envíe un fax a (916) 322-3928 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

CALIFORNIA AIR RESOURCES BOARD

/s/

James N. Goldstene
Executive Officer

Date: September 21, 2010

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at www.arb.ca.gov.