UPDATED INFORMATIVE DIGEST OF PROPOSED ACTION

Sections Affected: California Code of Regulations, Title 17, sections 94101, 49102, 94103, 94104, 94106, 94108, 94109, 94110, 94111, 94112, 94113, 94117, 94118, 94119, 94120, 94121, 94122, 94123, 94124, and 94137

Background

Section 39607(d) of the Health and Safety Code requires the ARB to adopt test procedures to determine compliance with ARB and district non-vehicular emission standards. Since 1983, the Board has adopted 61 test methods which are applicable to a wide variety of non-vehicular, stationary sources and additional test methods applicable to gasoline vapor recovery. The adopted test methods are incorporated by reference in sections 94101-94161, title 17, California Code of Regulations (CCR). However, if a district has established a test method for a specific source, section 94100 of title 17, CCR directs that the district test method be used to determine compliance with the district's emission limit for that source.

Description of the Regulatory Action

The ARB is amending the twenty non-vehicular, stationary source test methods listed below:

Section 94101	Method 1, Sample and Velocity Traverses for Stationary Sources
Section 94102	Method 2, Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)
Section 94103	Method 3, Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight
Section 94104	Method 4, Determination of Moisture Content in Stack Gases
Section 94106	Method 6, Determination of Sulfur Dioxide Emissions from Stationary Sources
Section 94108	Method 8, Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
Section 94109	Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources
Section 94110	Method 11, Determination of Hydrogen Sulfide Content of Fuel Gas Streams in Petroleum Refineries

Section 94111	Method 15, Determination of Hydrogen Sulfide, Carbonyl Sulfide, and Carbon Disulfide Emissions from Stationary Sources
Section 94112	Method 16, Semicontinuous Determination of Sulfur Emissions from Stationary Sources
Section 94113	Method 17, Determination of Particulate Matter Emissions from Stationary Sources (In-Stack Filtration Method)
Section 94117	Method 2A, Direct Measurement of Gas Volume Through Pipes and Ducts
Section 94118	Method 5A, Determination of Particulate Emissions from the Asphalt Processing and Asphalt Roofing Industry
Section 94119	Method 5E, Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry
Section 94120	Method 12, Determination of Inorganic Lead Emissions from Stationary Sources
Section 94121	Method 13A, Determination of Total Fluoride Emissions from Stationary Sources (SPADNS Zirconium Lake Method)
Section 94122	Method 13B, Determination of Total Fluoride Emissions from Stationary Sources ═ (Specific Ion Electrode Method)
Section 94123	Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide and Oxygen Emissions from Stationary Gas Turbines
Section 94124	Method 21, Determination of Volatile Organic Compound Leaks
Section 94137	Method 16A, Determination of Total Reduced Sulfur Emissions from Stationary Sources

In the above twenty amended test methods, the Board addresses technical improvements to the existing test methods for non-vehicular of stationery sources. The amendments make ARB Methods more consistent with comparable U.S. EPA Methods. With the exception of Methods 2 and 2A, the amendments include minor revisions and corrections requested by U.S. EPA. Each method has been amended to provide the ARB Executive Officer with the sole authority to approve modifications. Unnecessary references have been deleted from the bibliography of each method and references to comparable U.S. EPA methods and to related ARB methods have been added. Where methods include figures, these have been copied from EPA methods or redrawn to improve graphic quality. Features of ARB methods that depart from EPA methods to serve special needs in California have been preserved. Each of the methods has a counterpart U.S. EPA

test method having a similar number and title in U.S. EPA test methods found in the Code of Federal Regulations, Title 40, Part 60, Appendix A.

At the hearing, the staff presented, and the Board approved modifications to the regulations originally proposed in the Staff Report released on July 10, 1998, in response to comments received since the Staff Report was published. These modifications include addition of two new sections, Sections 8.4 and 8.5, to ARB Method 12. Section 8.4 allows the use of alternative analytical instrumentation, specifically, inductively coupled plasma - atomic emission spectrometry (ICP - AES). Section 8.5 specifies that ARB Method 436, "Determination of Multiple Metals Emissions from Stationary Sources," may be used instead of ARB Method 12.

Comparable Federal Regulation

Each of the methods has a counterpart U.S. EPA test method having a similar number and title in U.S. EPA test methods found in the Code of Federal Regulations, Title 40, Part 60, Appendix A, and listed below.

The revised test methods are substantially equivalent to current EPA methods since comparability of measurements and recognition of the merit and equivalence of ARB methods by EPA is desirable. Where EPA has improved upon the sampling, analysis, or quality assurance aspects of an ARB test method, we have incorporated the improvements in the revisions to the ARB test methods. However, the revised methods differ from EPA methods in certain provisions which have historically been found to serve unique needs in California, for instance in determining hydrogen sulfide (H_2S) emissions at geothermal facilities. The proposed methods also differ by vesting authority to approve modifications at the state level rather than the federal or district levels in order to ensure statewide consistency and to provide districts and testing organizations with faster decisions on modifications than would occur through the U.S. EPA.

The U.S. EPA test methods that are comparable to the amended ARB methods are listed below:

1. EPA Method 1, Sample and Velocity Traverses for Stationary Sources, CFR 40, Part 60, Appendix A.

2. EPA Method 2, Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube), CFR 40, Part 60, Appendix A.

3. EPA Method 2A, Direct Measurement of Gas Volume through Pipes and Small Ducts, CFR 40, Part 60, Appendix A.

4. EPA Method 3, Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight, CFR 40, Part 60, Appendix A.

5. EPA Method 4, Determination of Moisture Content in Stack Gases, CFR 40, Part 60,

Appendix A.

6. EPA Method 5A, Determination of Particulate Emissions from the Asphalt Processing and Asphalt Roofing Industry, CFR 40, Part 60, Appendix A.

7. EPA Method 5E, Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry, CFR 40, Part 60, Appendix A.

8. EPA Method 6, Determination of Sulfur Dioxide Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

9. EPA Method 8, Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

10. EPA Method 10, Determination of Carbon Monoxide Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

11. EPA Method 11, Determination of Hydrogen Sulfide Content of Fuel Gas Streams in Petroleum Refineries, CFR 40, Part 60, Appendix A.

12. EPA Method 12, Determination of Inorganic Lead Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

13. EPA Method 13A, Determination of Total Fluoride Emissions from Stationary Sources (SPADNS Zirconium Lake Method), CFR 40, Part 60, Appendix A.

14. EPA Method 13B, Determination of Total Fluoride Emissions from Stationary Sources (Specific Ion Electrode Method), CFR 40, Part 60, Appendix A.

15. EPA Method 15, Determination of Hydrogen Sulfide, Carbonyl Sulfide and Carbon Disulfide Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

16. EPA Method 16, Semicontinuous Determination of Sulfur Emissions from Stationary Sources, CFR 40, Part 60, Appendix A.

17. EPA Method 16A, Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger Technique), CFR 40, Part 60, Appendix A.

18. EPA Method 17, Determination of Particulate Matter Emissions from Stationary Sources (In-Stack Filtration Method), CFR 40, Part 60, Appendix A.

19. EPA Method 20, Determination of Nitrogen Oxides, Sulfur Dioxide and Oxygen Emissions from Stationary Gas Turbines, CFR 40, Part 60, Appendix A.

20. EPA Method 21, Determination of Volatile Organic Compound Leaks, CFR 40, Part 60, Appendix A.