

STAFF REPORT

MANUAL OF PROCEDURES, VOLUME III, LABORATORY METHODS

EXECUTIVE SUMMARY

Amendments to the Manual of Procedures, Volume III, Laboratory Methods are being proposed to incorporate advances in analytical equipment, add clarity, improve accuracy, reduce expenses and respond to comments by EPA technical staff.

There are no economic impacts associated with the adoption of these amendments to the Manual of Procedures. Sections 40728.5 and 40920.6 of the California Health and Safety Code, regarding socioeconomic impact analyses and incremental cost effectiveness analyses are not applicable to this proposal.

Pursuant to the California Environmental Quality Act, there are no environmental impacts from this proposal and the District intends to file a Notice of Exemption pursuant to state CEQA guidelines. Section 40727.2 of the California Health and Safety Code, regarding regulatory impact analyses, is not applicable to this proposal. There are no impacts on District staffing and resources since the proposals either use the same amount of time and materials, or save on expenses. Affected public have been given an opportunity to comment on the proposal, and staff recommend adoption of the proposed amendments.

BACKGROUND

Laboratory Methods are contained in the District's Manual of Procedures (MOP). Changes to the MOP are adopted by the Board of Directors at a public hearing and become part of the District's portion of the California State Implementation Plan (SIP). The Clean Air Act requires public notice of SIP submissions, just as California law requires public notice of hearings regarding rule amendments. Although the laboratory procedures are not regulatory standards, they do operate as the means of enforcement of the regulatory standards, and consequently, the accuracy and precision of the test methods define the stringency to which the regulatory standards can be enforced.

The Manual of Procedures contains methodology for enforcing standards throughout District rules. It is subdivided into eight sections, Enforcement Procedures, Engineering Permitting Procedures, Laboratory Methods, Source Test Policy and Procedures, Continuous Emission Monitoring Policy and Procedures, Air Monitoring Procedures, Guidelines for Environmental Processes Under the California Environmental Quality Act, and Procedures for Calculating and Generating Mobile Source Emission Reduction Credits. Although highly technical, proposed amendments to procedures and methods are distributed to the public to comment on prior to a public hearing to consider adoption. A public hearing gives the Board the opportunity to consider any comments by affected members of the public regarding the stringency and accuracy of the proposal.

DESCRIPTION OF AMENDMENTS TO THE MANUAL OF PROCEDURES, VOL. III

Introduction: The methodology now includes a section specifying that minor, intermediate and major changes can be made to a procedure if some aspect of the procedure is not applicable to the type of sample submitted (such as length of the analytical column). This requires the agreement of the Air Pollution Control Officer (APCO), user and manufacturer, and in the case of a major change, EPA approval is needed. A disclaimer has been added to indicate that specification of brand names in the methods does not constitute endorsement of that particular brand. In addition, the list of laboratory procedures has been updated.

Proposed Method 10A: Determination of Sulfur in Petroleum and Petroleum Products.

Petroleum and petroleum products such as fuel oils, residual oils and crude oils are analyzed for sulfur content by the energy dispersive X-ray Fluorescence Spectroscopy technique. The method is fast, non-destructive and requires minimal sample handling. It is more accurate and has a lower detection limit than Method 10. Method 10A supplements Method 10 and is only applicable to samples which do not contain water. Method 10A will be used to determine compliance with Regulation 9: Inorganic Gaseous Pollutants, Rule 1: Sulfur Dioxide, Section 304: Limit on Sulfur Content in Liquid and Solid Fuels; and to determine permit exemptions pursuant to Regulation 2: Permits, Rule 1: General Requirements, Sections 123.3.2 and 123.3.7: Limits on Sulfur Content.

Proposed Amendments to Methods: The proposed changes to the following methods exclude a provision allowing APCO discretion to alter the procedure because this discretion (minor, intermediate, and major changes) is now addressed in the introduction, add clarity, improve accuracy, correct errors, and add flexibility by allowing the use of other appropriate solvents, sample dilutions, gas chromatographic columns and operational parameters:

Method 21: Determination of Compliance of Volatile Organic Compounds for Water Reducible Coatings

Method 22: Determination of Compliance of Volatile Organic Compounds for Solvent Based Coatings, Inks and Related Materials

Method 31: Determination of Volatile Organic Compounds in Paint Strippers, Solvent Cleaners and Low Solids Coatings

Method 33: Determination of Dissolved Critical Volatile Organic Compounds in Wastewater Separators

Method 41: Determination of Volatile Organic Compounds in Solvent Based Coatings and Related Materials Containing Parachlorobenzotrifluoride

Method 43: Determination of Volatile Methylsiloxanes in Solvent Based Coatings, Inks, and Related Materials

Method 45: Determination of Butanes and Pentanes in Polymeric Materials

Method 46: Determination of the Composite Partial Pressure of Volatile Organic Compounds in Cleaning Products

ECONOMIC IMPACTS

There are no economic impacts associated with the proposed amendments to Volume III of the Manual of Procedures. Although the accuracy and precision of the laboratory methods determines to what extent the standards in rules can be enforced, they are not standards in themselves. Consequently, economic impacts are limited to the costs of the laboratory methods for industries to self audit their compliance status, if they desire. None of the rules require a determination of compliance by the industries affected by the rules, and the costs of recordkeeping, monitoring, product reformulation and control equipment have already been considered during the adoption of those specific regulations.

California Health and Safety Code, Section 40728.5 requires an analysis of the socioeconomic impacts of rule amendments adopted that “will significantly affect air quality or emissions limitations.” This requirement of Section 40728.5 is not applicable to the District adoption of these amendments, because the amendments do not alter or affect air quality or emissions limitations. They simply provide a mechanism to enforce existing standards.

California Health and Safety Code, Section 40920.6 requires an assessment of incremental cost effectiveness for one or more potential control options which achieve the emission reduction objectives of the proposed amendment. Section 40920.6 does not apply. There are no emission reduction objectives associated with the adoption of laboratory methodology. The standards for which this section of law apply have already undergone the appropriate economic analyses at the time of their adoption.

ENVIRONMENTAL IMPACTS

Adoption of the proposed amendments will not have any environmental impact. Laboratory methods are detailed means by which to enforce standards for which an environmental impact analysis has already been done, they do not set new standards or change existing standards. Therefore, the District has determined that these amendments to the Manual of Procedures are exempt from the provisions of the California Environmental Quality Act pursuant to State CEQA Guidelines, Section 15061, subd. (b)(3), and Section 15321. The District intends to file a Notice of Exemption pursuant to State CEQA Guidelines, Section 15062.

REGULATORY IMPACTS

Under California Health and Safety Code, Section 40727.2, upon adoption, amendment or repeal of air district regulations, a comparison of existing federal and district rules that affect the same equipment or source type is required. However, Section 40727.2 (g) states, “If a district’s proposed new or amended rule or regulation does not impose a new emission limit or standard, or impose new or more stringent monitoring, reporting, or recordkeeping requirements, or if the proposed new or amended rule or regulation is a

verbatim adoption or incorporation by reference of a federal New Source Performance Standard adopted pursuant to Section 111 of the Clean Air Act (U.S.C. 7411) or an airborne toxic control measure adopted by the state board pursuant to Section 39666, a district may elect to comply with subdivision 40727.2 (a) by preparing an alternative analysis demonstrating that the proposed new or amended rule or regulation falls within one or more of the categories specified in this subdivision.”

CH&SC Section 40727 does not apply. Each of the elements that trigger this section of the law specifically speaks to direct requirements for industry affected by a regulation. Emission limitations, monitoring, recordkeeping and reporting requirements all have direct costs to industry. The methodology by which to determine compliance is not a direct cost. Industry is required to be in compliance with adopted standards, and requirements to do certain tests or monitor for compliance by certain methods may be imposed. If so, those would be requirements within the rules, and would be subject to Section 40727, however, the methods themselves are not.

RULE DEVELOPMENT HISTORY

On September 5, 1979, the Board of Directors recodified District regulations and first adopted a Manual of Procedures as a separate document from the rules and regulations. Since then, from time to time the Board has amended the MOP to incorporate new policy, procedures or methods or improve existing ones. Advances in analytical equipment to enable District staff to save time or to be more accurate in emission measurement, and new standards that require new procedures and methods are the primary reasons for MOP amendments.

On September 15, 2004, staff solicited written or verbal comments on these proposed amendments to Volume III of the MOP in lieu of scheduling a public workshop. In addition, the draft methods were published on the District’s web site. Typically, commenters would be laboratory staff members at other Districts, ARB, EPA, affected industries locally, and, in the case of products that will have to comply with new standards, at affected industries across the country. Because of the highly technical nature of the methods, comments tend to be few and commenters are easily able to discuss the proposal with District laboratory staff over the phone or via e-mail. To date, only one comment has been received. The question pertains to the more specific title of Method 22 in the method document, and this has been addressed by changing the title in the Introduction in order to be consistent with that of the method header.

DISTRICT STAFF IMPACTS

Proposed Method 10A does not replace existing Method 10 due to the differences in applicability of the methods. Where Method 10A is usable, there is no adverse impacts on district staff since the method involves a significant reduction in run time and a decrease in cost is anticipated. Staff estimates no impact resulting from the seven proposed changes, since there is minimal increase in time of analysis associated with the changes in gas chromatographic columns and operating parameters

CONCLUSION

The laboratory procedures are proposed mainly to reduce costs, incorporate advances in analytical equipment and improve method accuracy.

Pursuant to the California Health and Safety Code, Section 40727, regulatory amendments must meet findings of necessity, authority, clarity, consistency, non-duplication, and reference. The proposed amendments are:

- Required to enforce provisions of previously adopted rules and regulations and to improve the sensitivity and flexibility of the existing methods.

- Authorized by the California Health and Safety Code Section 40000, 40001, 40702, and 40725 through 40728;

- Clear, in that the laboratory methods are written so that they can be understood by persons affected by them;

- Consistent with other District rules and test methods, and not in conflict with any state or federal law;

- Non-duplicative of other statutes, rules or regulation; and

- Are implementing, interpreting, or making specific the provisions of California Health and Safety Code Sections 40000 and 40702.

The proposed amendments have met all legal noticing requirements and interested parties have been notified. One comment received has been discussed with the interested party. District staff recommends adoption of the amendments to the Manual of Procedures, Volume III, Laboratory Methods: Introduction, and Methods 10A, 21, 22, 31, 33, 41, 43, 45 and 46.

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