



Project Summary

Stationary Source Sampling and Analysis Directory (SSSADIR) Version 2.1

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The U.S. Environmental Protection Agency (EPA), in developing and evaluating sampling and analysis methodology for stationary sources, has compiled information on availability and applicability of sampling and analytical methods. Information has also been summarized on the applicability of the gas chromatography/mass spectrometry as the analytical method. This information is accessible in this document. The Stationary Source Sampling and Analysis Directory (SSSADIR) has information on which sampling and analytical methods to use for organic compounds listed in Title III of the Clean Air Act Amendments (CAAA) of 1990,¹ as well as Appendices VIII² and IX³ of RCRA compounds, and the status of method evaluation for these analytes. The SSSADIR provides information on CAAA compounds for which EPA has no potential methods available but suggests ways to develop methods.

This Project Summary was developed by EPA's National Exposure Research Laboratory (NERL), Research Triangle Park, NC, to announce key findings of the research project that is fully documented in a separate report of the same title (see Project Report ordering information at back).

Introduction

The Methods Branch, NERL, while evaluating stationary source sampling and analytical methodology for use in conjunction with the hazardous waste incineration regulations Appendices VIII² and IX,³ RCRA and the CAAA, Title III, 1990,¹ has assembled information on all the listed compounds. Some compounds have validated methods available, some have meth-

ods that might work, and others have no method available at this time. This information has been gathered into this EPA report.

Most databases of sampling and analytical methods are analyte-based. If a method has a specific list of analytes applicable to that method, the database can readily locate all methods applicable for that analyte. However, many sampling and analytical methods for stationary sources do not incorporate a specific list of applicable analytes. These methods (such as Method 0030)⁴ include only some general guidance (e.g., a boiling point range) on the analytes amenable to the method. In an analyte-based database, it is impossible to find out that Method 0030⁴ is the method of choice for sampling and analysis of carbon tetrachloride in stationary sources. The SSSADIR, a database stand-alone program that can be run on any personal computer, provides a solution to the problem of locating appropriate stationary source sampling and analytical methods for specific analytes. This version of SSSADIR replaces the "POHCs Directory, Version 1".⁵ The original POHCs Directory contained only the compounds listed in Appendix VIII.² The SSSADIR has retained all these compounds, edited and upgraded to incorporate recent information, and has added all the compounds from Appendix IX³ and the compounds listed in Title III Amendments to the Clean Air Act of 1990.¹ The present directory contains information on properties (e.g., boiling point, melting point, flammability) for each individual compound listed. If a validated method is available for the compound, this validated method is listed with the pertinent reference. However, if no method validation information is available,

either a proposed method is listed or the method is left blank, indicating no current known method. Problems with the sampling or analytical methodology are listed with suggestions for solutions, if known. Physical properties are provided to permit comparison of one compound to another compound of known properties (such as incinerability). The database may be searched by several parameters such as name, CAS number, boiling point, incinerability index, and problems in sampling or analysis.

The database provides a snapshot of available information at one point in time. Since method evaluation and method development is an ongoing effort with the EPA, new information is constantly becoming available. Future updates to the database will focus on making information on method evaluation available to provide guidance on selection of methods. No matter what information is available to sug-

gest that a given compound "should work" using a specified sampling and analytical methodology, the ultimate test is always provided by an actual field evaluation of that methodology and compound at a stationary source. Even a successful method evaluation at a particular stationary source does not guarantee universal success for the methodology and analyte at any, or every, stationary source. However, the guidance available through SSSADIR can provide a starting point for determining applicable methodology.

References

1. Clean Air Act Amendments, Title III, Public Law 101-549, 1990.
2. U.S. Government Printing Office, *Code of Federal Regulations*, 40CFR, Part 261, Appendix VIII, 1990, pp 90-98.
3. U.S. Government Printing Office, *Code of Federal Regulations*, 40CFR,

Part 261, Appendix IX, 1990, pp 98-117.

4. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 Manual, 3rd ed. Document No. 955-001-0000001. Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC. November, 1986.
5. Baughman, K.W., R.H. James, R.B. Spafford, and C.H. Duffey. Problem POHC Reference Directory, EPA/600/6-89/094 (NTIS 91-507749). U.S. Environmental Protection Agency, Research Triangle Park, NC.

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The complete report, entitled "Stationary Source Sampling and Analysis Directory (SSSADIR) Version 2.1," (Manual - Order No. PB98-120033; Database - Order No. PB98-500598; Cost: \$60.00 subject to change) will be available only from:

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