U.S. Environmental Protection Agency

QUALITY CONTROL MATERIALS FOR AIR & WATER ANALYSIS
3-3-78

I. Contact for Air Analysis Methodology and Quality Assurance:

U.S. Environmental Protection Agency
Environmental Monitoring and Support Laboratory (EMSL) -
Research Triangle Park (RTP)
Research Triangle Park, NC 27711
(919)541-2196

Contact for Water Analysis Methodology and Quality Assurance:

U.S. Environmental Protection Agency
Environmental Monitoring and Support Laboratory (EMSL) -
Cincinnati
Cincinnati, OH 45268
(513)684-7301

Contact for Region V -- Regional Quality Control Coordinator:

Water - David A. Payne, Chief
Quality Assurance Office
Surveillance and Analysis Division
U.S. Environmental Protection Agency
536 South Clark Street
Chicago, Illinois 60605
(312)353-9351 or 9317

Air - Kendall Young
Quality Assurance Office
U.S. Environmental Protection Agency
536 South Clark Street
Chicago, Illinois 60605
(312)353-9528

II. Manuals:

The following water analysis manuals are available free from Technology Transfer, U.S. Environmental Protection Agency, Cincinnati, OH 45268. Phone: (513)684-7394; FTS: 684-7394

Methods for Chemical Analysis of Water and Wastes, EPA, 1974. (New edition in preparation).

Handbook for Analytical Quality Control in Water and Wastewater Laboratories, EPA, 1972.

Handbook for Monitoring Industrial Wastewater, EPA, 1973.

A bibliography for all available Technology Transfer publications is available upon request. See attached copy of Request for Technology Transfer Information. Your Regional Quality Control Coordinator also has a limited number of the above three publications for distribution. It is best to order the manuals from Technology Transfer since further errata and corrections can be made through their centralized mailing lists.

EPA approved test procedures for National Pollutant Discharge Elimination System (NPDES) monitoring can be found in the Federal Register, Vol. 38, No. 199, pp. 28757-28760, October 16, 1973 as 40 CFR 136. Amendments to 40 CFR 136, promulgated in the Federal Register, Vol. 41, No. 232, pp. 52779-52786, December 1, 1976, update references cited by the October 16, 1973 regulations and specify additional approved test procedures. The Federal Register, Vol. 42, No. 12, pp. 3306-3307, January 18, 1977, correct three errors appearing in the Amendments to 40 CFR 136 for nickel, nitrite, and phenolics. The Federal Register, Vol. 42, No. 139, pp. 37205, July 20, 1977, defines in more detail the test procedure used for suspended solids during NPDES monitoring. See Attachment.

Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants, revised April 1977, is in draft form and can be used for guidance. It is available, on request, from EMSL-Cincinnati, OH 45268, (513)684-7301 or FTS: 684-7301.

EPA approved test procedures for the National Interim Primary Drinking Water Regulations (NIPDWR) can be found in the Federal Register, Vol. 40, No. 248, pp. 59565-59588, December 24, 1975, as part of 40 CFR 141. Your Regional Quality Control Coordinator should be contacted for the current list of alternate test procedures approved for NIPDWR chemical contaminant measurements, to supplement those cited by 40 CFR 141. EPA's Office of Water Supply will eventually publish them in the Federal Register. Analytical methodology for radioactivity measurements for the NIPDWR can be found in the Federal Register, Vol. 41, No. 133, pp. 28401-28409, July 9, 1976.

Both *The Analysis of Trihalomethanes in Finished Waters by the Purage and Trap Method,* EPA, EMSL-Cincinnati, September 9, 1977, and *The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction,* EPA, EMSL-Cincinnati, September 8, 1977, have been proposed by 40 CFR 141.25 as reference methods for trihalomethanes in drinking water by the Federal Register, Vol. 43, No. 28, pp. 5755-5780, February 9, 1978. The two methods are available, on request, from:

Criteria and Standards Division
Office of Drinking Water (WH-550)
Environmental Protection Agency
Washington, D.C. 20460

Interim test procedures for pentachlorophenol, chlorinated organic compounds, and pesticides, promulgated by 40 CFR Part 136 for NPDES Monitoring, and by 40 CFR Part 141 for the NIPDWR, are available from EMSL-Cincinnati upon request.

The general pesticide analysis manual:

Analysis of Pesticide Residues in Human and Environmental Samples, EPA, 1974,

and a quality control manual:

Manual for Analytical Quality Control for Pesticides in Human and Environmental Media, EPA, EPA-600/1-76-017, February 1976,

are available upon request from:

U.S. Environmental Protection Agency
Quality Assurance Section, Analytical Chemistry Branch
Environmental Toxicology Division, MD#69
Health Effects Laboratory
Research Triangle Park, NC 27711
(919)549-8411 Ext. 2563

A laboratory instruction manual, designed for a municipal treatment plant operator or a technician who is required to monitor effluent discharges under a NPDES permit, has been prepared by EPA's National Training Center. The manual is designed for the analyst with little or no experience in wastewater analysis or flow measurement to determine BOD_5, pH, fecal coliforms, and open channel flow. The manual is *Self-Monitoring Procedures: Basic Parameters for Municipal Effluents - Student Reference Manual*, EPA, Water Program Operations, EPA-430/1-74-008. NTIS Accession No. PB 243 417/AS, $8.75 per copy. A limited number of copies are available free to public agencies.

Region V, EPA has been a source for the following sediment analysis manual:

Chemistry Laboratory Manual - Bottom Sediments, Great Lakes Region Committee on Analytical Methods, Federal Water Quality Administration, December 1969.

This manual has never received official sanction by U.S. EPA. The manual has been a source of analytical methodology, if used judiciously, for assessing the quality of dredge material from the Great Lakes. The manual's supply has been depleted within Region V. You may order the manual from NTIS using NTIS Accession No. PB 215 192, $5.50/copy. NTIS is described below.

Ecological Evalution of Proposed Discharge of Dredged or Fill Material into Navigable Waters: Interim Guidance for Implementation of Section 404(b)(1) of Public Law 92-500 (Federal Water Pollution Control Act of 1972), Miscellaneous Paper D-76-17, Environmental Effects Laboratory, 1976, is a manual to provide interim guidance (analytical methodology included) for the evaluation of proposed discharges of dredged or fill material into navigable waters. The manual can be obtained from:

Department of the Army
Waterways Experiment Station
Corps of Engineers
P.O. Box 631
Vicksburg, Mississippi 39180

The following biology manuals provides EPA's official aquatic biology and bioassay methodologies:

Biological Field and Laboratory Methods for Measuring the Quality of Surface Water and Effluents, EPA, EPA-670/73-001, July 1973. NTIS Accession No. PB 227 183, $12.50/copy.

Methods for Measuring the Acute Toxicity of Effluents to Aquatic Organisms, EPA-600/4-78-012, January 1978.

They are available from Aquatic Biology Section, EMSL-Cincinnati, EPA, Cincinnati, Ohio 45268.

Limited quantities of *Handbook for Evaluation Water Bacteriological Laboratories*, EPA, EPA-670/9-75-006, August 1975, are available free from U.S. Environmental Protection Agency, Office of Research and Development, Technical Information Staff, Cincinnati, OH 45268, or from Mr. E.E. Geldreich, MERL-Cincinnati, EPA, Cincinnati, OH 45268. The handbook can also be purchased from NTIS using NTIS Accession No. PB 247 145/AS, $7.50/copy.

The microbiology handbook and many of the following ambient air analysis manuals can be purchased, being sure to use the NTIS Accession No.'s, and EPA report titles and number from:

National Technical Information Service (NTIS)
U.S. Deparment of Commerce
5285 Port Royal Road
Springfield, VA 22161

Checks or money orders are made payable to NTIS. Purchase orders require an additional $5.00 service charge.

The original reference methods for the determination of suspended particulates, sulfur dioxide, nitrogen dioxide, carbon monoxide, photochemical oxidants, and hydrocarbons corrected for methane for National Primary and Secondary Ambient Air Quality Standards were promulgated as 42 CFR Part 410 in the Federal Register, Vol. 36, No. 84, p. 8186, April 30, 1971, Appendices A through F, and were recodified as 40 CFR Part 50 in the Federal Register, Vol. 37, p. 22384, November 25, 1971, Appendices A through F.

Regulations concerning EPA approval of specific instruments as designated reference or equivalent methods for sulfur dioxide, carbon monoxide, and photochemical oxidants were promulgated as 40 CFR Parts 50, 51, and 53 in the Federal Register, Vol. 40, No. 33, p. 7041, February 18, 1975. Typographical corrections to this regulation are found in the Federal Register of April 25, 1975. Continuous monitoring instruments, purchased after February 18, 1976, are required to be Designated Reference or Equivalent Methods if they are to be used for monitoring National Ambient Air Quality Standards for these three parameters. Instruments not designated as Reference or Equivalent Methods may not be used to monitor these standards after Febraury 18, 1980. These regulations, *Ambient Air Monitoring Reference and Equivalent Methods*, supersede all or part of the original reference methods of 42 CFR 410 for these three parameters.

Reference and Equivalent Methods for Nitrogen Dioxide were promulgated in the Federal Register, December 1, 1976, Vol. 41, No. 232, pp. 52686-52695. Continuous monitoring instruments for nitrogen dioxide, purchased after December 1, 1977, are required to be designated reference or equivalent methods if they are to be used for National Ambient Air Quality Standards. Instruments not so designated may not be used for this monitoring after December 1, 1979. Manual methods which are Designated Equivalent Methods for NO_2 were promulgated on Wednesday, December 14, 1977, Federal Register, Vol. 42, No. 240, pp. 62971 and 62972. The methods designated are, (1) EQN-1277-026, *Sodium Arsenite Method for the Determination of Nitrogen Dioxide in the Atmosphere*, (2) EQN-1277-027, *Sodium Arsenite Method for the Determination of Nitrogen Dioxide in the Atmosphere - Technicon II Automated Analysis System*, and (3) EQN-1277-028, *TGS-ANAS Method for the Determination of Nitrogen Dioxide in the Atmosphere*. Procedures are available from Department E, EMSL-RTP, USEPA, Research Triangle Park, NC 27711. Any manual method for nitrogen dioxide, other than Designated Equivalent Methods, may not be used for monitoring of air standards after December 1, 1977.

See also, *Technical Assistance Document for the Chemiluminescence Measurement of Nitrogen Dioxide*, EPA 600/4-75-003, December 1975.

Miscellaneous Amendaments to the above "Reference and Equivalent Methods" of February 18, 1975, were promulgated in the Federal Register, Vol. 41, No. 53, p. 11251, March 17, 1976. These regulations include provision for modifications of reference, equivalent, or alternative methods by users.

An updated *List of Designated Reference and Equivalent Methods* is maintained in Region V, EPA by the Air Surveillance Branch - Phone (312)353-2303 and by the Quality Assurance Office - Phone (312)353-9528.

A revised version of the calibration procedure for the reference method for photochemical oxidants can be found in the April 14, 1975, memo from EMSL-RTP entitled *Clarification of Reference Method for Photochemical Oxidants*. This memo is available from your Regional Quality Control Coordinator.

EPA is considering proposal of certain amendments to 40 CFR 50 Appendix D to change the calibration procedure for photochemical oxidants. This is outlined in the Federal Register, Vol. 41, No. 195, pp. 44049-44057. An interim policy for calibration of ozone monitors is discussed.

See also, *Evaluation of 1 Percent Neutral Buffered Potassium Iodide Procedure for Calibration of Ozone Monitors*, EPA 600/4-77-005, January 1977, NTIS Accession Number PB 267 985.

Standards for Performance for New Stationary Sources, Revision to Reference Method 1-8, was promulgated Thursday, August 18, 1977 and published in Federal Register, Vol. 42, No. 160, pp. 41754-41789.

Environmental Protection Agency Proposed Rules for *Lead Ambient Air Quality Standard* was published in Federal Register, Vol. 42, No. 240, Wednesday, December 14, 1977. This proposal is expected to be promulgated in June 1978, pp. 63076-63094. A Reference Method is proposed.

Guidance for the Future use of NASN, OAQPS No. 1.2-075, EPA provides information about the TSP Hi-Vol site selection and filter submissions. This is available from QAO, Region V, upon request.

Guidance for the selection of automated methods for measuring hydrocarbons may be found in the Environmental Monitoring Series document *Guidelines for Determining Performance Characteristics of Automated Methods of Measuring Nitrogen Dioxide and Hydrocarbons Corrected for Methane*, EPA, EPA-650/4-74-018. NTIS Accession No. PB 238 092/AS. $3.75/copy.

See also, *Evaluation of the EPA Reference Method for the Measurement of Non-Methane Hydrocarbons - Final Report*, EPA 600/4-77-033, June 1977.

Two pertinent analytical methodology reports from EMSL-RTP are:

Effect of Temperature on Stability of Sulfur Dioxide Sample Collected by the Reference Method, EPA, EPA-600/4-76-024, May 1976. NTIS Accession No. PB 253 778/AS. $4.00/copy.

Measurement of Atmospheric Sulfates: Evaluation of the Methylthymol Blue Method, EPA, EPA-600/4-76-015, March 1976. NTIS Accession No. PB 253 349/AS. $4.00/copy.

The following quality assurance handbooks

Quality Assurance Handbook for Air Pollution Measurement Systesm - Volume I - Principles, EPA, EPA-600/9-76-005, March 1976

Volume II, Ambient Air Specific Methods, EPA 600/4-77-027a.. May 1977

are available free of charge to air monitoring personnel from your Regional Quality Control Coordinator or from:

Environmental Protection Agency
EMSL-RTP, Quality Assurance Branch (MD#77)
Research Triangle Park, NC 27711

The Distribution Record Card attached to Volumes I or II should be completed so that updates can be provided by EMSL-RTP. EMSL-RTP plans to use these handbooks as a central point for communications of quality assurance recommendations.

The following valuable air analysis manuals, if in stock, are available free to qualified public supported air monitoring agencies by contacting the U.S. Environmental Protection Agency, Air Pollution Technical Information Center, Research Triangle Park, NC 27711, (919)549-8411, Ext. 2752; FTS 629-2711. If unavailable please utilize NTIS.

Quality Control Practices in Processing Air Pollution Samples, EPA, 1973. APTD-1132. NTIS Accession No. PB 230 890/AS. $6.25/copy.

Guidelines for Development of a Quality Assurance Program -- Reference Method for Continuous Measurement of Carbon Monoxide in the Atmosphere, EPA-R4-73-028a. NTIS Accession No. PB 222 512. $5.25/copy.

Guidelines for Development of a Quality Assurance Program -- Reference Method for the Determination of Suspended Particulates in the Atmosphere (High Volume Method), EPA-R4-73-028b. NTIS Accession No. PB 223 051. $5.75/copy.

Guidelines for Development of a Quality Assurance Program -- Reference Method for Measurement of Photochemical Oxidants, EPA-R4-73-028c. NTIS Accession No. PB 222 336. $5.25/copy.

Guidelines for Development of a Quality Assurance Program -- Reference Method for the Determination of Sulfur Dioxide in the Atmosphere, EPA-R4-73-028d. NTIS Accession No. PB 226 486. $5.75/copy.

III. Dissemination of Information:

Analytical Quality Control Newsletter
Joseph B. Anderson, Editor
U.S. Environmental Protection Agency
EMSL-Cincinnati
Cincinnati, OH 45268

Contact Mr. Anderson to be placed on mailing list. The Newsletter publishes methodology and quality control articles from all areas of EPA. Contacts within EPA for further information are given with each article. A request for addition to the Newsletter's mailing list is attached.

IV. EPA Interlaboratory Testing Programs:

Water Methodology Assessment and Quality Control Samples

John A. Winter
U.S. Environmental Protection Agency
EMSL-Cincinnati
Cincinnati, OH 45268

Interlaboratory Audits for Ambient Air Analysis

Steven M. Bromberg
U.S. Environmental Protection Agency
EMSL-RTP, QAB (MD#77)
Research Triangle Park, NC 27711

Interlaboratory Audits for Air Sources

Bob Denney
U.S. Environmental Protection Agency
EMSL-RTP, QAB (MD#77)
Research Triangle Park, NC 27711

V. Interlaboratory Audits for Ambient Air Analysis

Twice per year the Quality Assurance Branch, EMSL-RTP, provides interlaboratory audits (unknowns) to air monitoring programs for the following ambient air tests:

1. sulfur dioxide bubbler solutions
2. nitrogen dioxide bubbler solutions
3. carbon monoxide continuous monitors
4. sulfate and nitrate on filter paper
5. lead on filter paper

Once per year the following interlaboratory audit is provided:

1. calibration of Hi-Vol flow rate

Contact your Regional Quality Control Coordinator to participate.

VI. EPA Quality Control Samples

Quality Control samples, prepared by EMSL-Cincinnati, can be obtained free, either from your Regional Quality Control Coordinator or from EMSL-Cincinnati, These samples are sent as concentrates to each user with "true values" provided in a sealed envelope. They provide an independent check on the calibration accuracy of a laboratory's methodologies. Except for the LAS samples, they are not meant to replace a laboratory's calibration standards - only to periodically audit laboratory accuracy. The samples are applicable to both water pollution and water supply laboratories. Quality Control samples currently available are:

1. NTA - Nitriloacetic Acid - Four Concentration Levels
2. LAS - Linear Alkylate Sulfonate
3. Trace Metals - Al, As, Be, Cd, Cr, Co, Cu, Fe, Pb, Hg, Mn, Mi, Se, V, and Zn - Three Concentration Levels
4. Demand - BOD, COD, TOC - Two Concentration Levels
5. Nutrients - ammonia, nitrate, orthophosphate, Kjeldahl nitrogen, and total phosphorus - Two Concentration Levels
6. Minerals - pH, conductance, dissolved solids (180°C), alkalinity, chloride, sulfate, fluoride, calcium, magnesium, hardness, sodium, and potassium - Two Concentration Levels

7. Chlorophyll, Spectrophotometric Analysis - One Concentration Level

8. Chlorophyll, Fluorometric Analysis - Three Concentration Levels

9. PCB's - Arochlors 1254 and 1016

10. Non-Filterable Residue (Suspended Solids) - Three Concentration Levels

11. Petroleum Hydrocarbons (For Characterization) - two crude oils, #2 fuel oil and Bunker C

12. Volatile Organics - nine volatile hologenated hydrocarbons including the trihalomethanes - Two Concentration Levels

Quality Control samples for new parameters will be announced in the AQC Newsletter. Quality Control samples for specific water supply parameters and maximum contaminant levels are in preparation.

RULES AND REGULATIONS

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

[FRL 765-1]

SUBCHAPTER D—WATER PROGRAMS

PART 136—GUIDELINES ESTABLISHING TEST PROCEDURES FOR THE ANALYSIS OF POLLUTANTS

Amendment; Correction

AGENCY: Environmental Protection Agency.

ACTION: Correction of final rule.

SUMMARY: This notice corrects the amendments to 40 CFR 136 (§ 136.3, Table 1) which were published on December 1, 1976 in the FEDERAL REGISTER (41 FR 52780) by reinstating the post-filtration washing option for total suspended residue measurements. On page 52784, for parameter number 106, Total Suspended Residue, add in the column titled "Method," a new line which reads "Glass fiber filtration, 103–105°C, post-washing of residue," and opposite this entry in the column titled "Other Approved Methods," the page and footnote designation "[27] 537." On page 52785 add a new footnote 27 to read: "[27] Standard Methods for the Examination of Water and Wastewater, 13th Edition, (1971)."

EFFECTIVE DATE: June 20, 1977.

FOR FURTHER INFORMATION CONTACT:

Robert B. Medz, Office of Monitoring and Technical Support, RD-680, 401 M St., SW., Washington, D.C. 20460, 202-426-4727.

STEPHEN J. GEORGE,
Acting Assistant Administrator for Research and Development.

JULY 14, 1977.

[FR Doc.77-20768 Filed 7-19-77;8:45 am]

RULES AND REGULATIONS

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER D—WATER PROGRAMS

PART 136—GUIDELINES ESTABLISHING TEST PROCEDURES FOR THE ANALYSIS OF POLLUTANTS

Amendment of Regulations; Corrections

In FR Doc. 76-35032 appearing at pages 52780 to 52786 in the FEDERAL REGISTER of Wednesday, December 1, 1976, the following changes should be made:

§ 136.3 [Amended]

1. On Page 52783, for parameter number 62, Nickel—Total, add "232" to the page references in the column under the 14th edition of Standard Methods opposite the colorimetric method designation.

2. On page 52784, for parameter number 89, change the parameter designation from "Nitrate" to "Nitrite."

3. On page 52784, for parameter number 96, Phenols, delete the present method designation, "Colorimetric, (4AAP)," and replace it with the method designation, "Distillation followed by colorimetric, (4AAP)"; delete the page reference in the column under the 14th edition of Standard Methods, "582," and replace it with page number "574".

Dated: January 10, 1977.

WILSON K. TALLEY,
Assistant Administrator for Research and Development.

[FR Doc.77-1453 Filed 1-17-77;8:45 am]

TECHNOLOGY TRANSFER
The Bridge Between Research and Use

U.S. ENVIRONMENTAL PROTECTION AGENCY JANUARY 1976

RELOCATION OF OFFICE OF TECHNOLOGY TRANSFER

ON November 3, 1975, the EPA Technology Transfer Program was physically relocated from Washington, D.C., to Cincinnati, Ohio. This relocation involves no changes in the functions or responsibilities of the program, and all Technology Transfer activities (seminars, publications, etc.) will continue as in the past.

All correspondence directed to Technology Transfer should be forwarded to:

U.S. Environmental Protection Agency
Technology Transfer
Cincinnati, Ohio 45268

Individuals on the Technology Transfer staff can be reached at 513-684-4404.

An up-to-date request sheet for Technology Transfer publications is attached for your convenience. Note that six semitechnical brochures (No. 5001 through 5006) have been deleted from this request sheet. A new publication has been developed to replace all of these six documents and will be available very shortly. Information contained in this one publication will be the latest available on all viable alternative wastewater treatment systems. As with the six publications being replaced, this publication is intended for use by other than design-oriented personnel and is also written in a semitechnical tone. Those of you who have requested any one of publications 5001-5006 will automatically receive the new publication when it becomes available.

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REQUEST FOR TECHNOLOGY TRANSFER MATERIAL

The publications listed on this form are the only ones available through the Office of Technology Transfer.

Please send me the following publications at no charge. (Check appropriate boxes)

PROCESS DESIGN MANUALS

- ☐ Phosphorus Removal (Oct. 1971) 1001
- ☐ Carbon Adsorption (Oct. 1973) 1002
- ☐ Suspended Solids Removal (Jan. 1975) 1003
- ☐ Upgrading Existing Wastewater Treatment Plants (Oct. 1974) 1004
- ☐ Sulfide Control in Sanitary Sewerage Systems (Oct. 1974) 1005
- ☐ Sludge Treatment and Disposal (Oct. 1974) 1006
- ☐ Nitrogen Control (Oct. 1975) 1007

TECHNICAL CAPSULE REPORTS

- ☐ Recycling Zinc in Viscose Rayon Plants 2001
- ☐ Color Removal from Kraft Pulping Effluent by Lime Addition 2002
- ☐ Pollution Abatement in a Copper Wire Mill 2003
- ☐ First Interim Report on EPA Alkali SO_2 Scrubbing Test Facility 2004
- ☐ Dry Caustic Peeling of Peaches 2005
- ☐ Pollution Abatement in a Brewing Facility 2006
- ☐ SO_2 Scrubbing and Sulfuric Acid Production Via Magnesia Scrubbing 2007
- ☐ Second Interim Report on EPA Alkali Scrubbing Test Facility 2008
- ☐ Magnesium Carbonate Process for Water Treatment 2009

HANDBOOKS

- ☐ Analytical Quality Control in Water and Wastewater Laboratories 6001
- ☐ Monitoring Industrial Wastewater 6002
- ☐ Methods for Chemical Analysis of Water and Wastes 6003

MUNICIPAL SEMINAR PUBLICATIONS

- ☐ Upgrading Lagoons 4001
- ☐ Physical-Chemical Treatment 4002
- ☐ Oxygen Activated Sludge 4003
- ☐ Nitrification/Denitrification 4004
- ☐ Upgrading Existing Wastewater Treatment Facilities—Case Histories 4005
- ☐ Flow Equalization 4006
- ☐ Wastewater Filtration 4007
- ☐ Physical-Chemical Nitrogen Removal 4008
- ☐ Air Pollution Aspects of Sludge Incineration 4009

BROCHURES

- ☐ Seattle, Washington METRO 5007
- ☐ Wastewater Purification at Lake Tahoe 5008
- ☐ Indian Creek Reservoir 5009
- ☐ Richardson, Texas 5010

INDUSTRIAL SEMINAR PUBLICATIONS

- ☐ Upgrading Poultry Processing Facilities to Reduce Pollution (3 Vols.) 3001
- ☐ Upgrading Metal Finishing Facilities to Reduce Pollution (2 Vols.) 3002
- ☐ Upgrading Meat Packing Facilities to Reduce Pollution (3 Vols.) 3003
- ☐ Upgrading Textile Operations to Reduce Pollution (2 Vols.) 3004

If you are not currently on the mailing list for the Technology Transfer Newsletter, do you want to be added? Yes ☐ No ☐

Name _____

Employer _____

Street _____

City _____ **State** _____ **Zip** _____

Note: Forward to Technology Transfer, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268.

SOURCES OF INFORMATION
IN THE
U.S. ENVIRONMENTAL PROTECTION AGENCY

AIR POLLUTION

Air Pollution Technical Information Center
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

SOLID WASTE

Office of Solid Waste Information Retrieval
U.S. Environmental Protection Agency
1835 K Street, N.W.
Washington, D.C. 20560
Tel: 202/254-7508

PESTICIDES

Technical Services Division
Office of Pesticides Programs
U.S. Environmental Protection Agency
Pesticides Reference Room
Washington, D.C. 20460
Tel: 202/426-2433

RADIATION

Reports Branch
Office of Radiation Programs
U.S. Environmental protection Agency
Room 615 Waterside Mall East
Washington, D.C. 20460
Tel: 202/755-1331

NOISE POLLUTION

Office of Noise Abatement and Control
U.S. Environmental Protection Agency
Room 1121 (HM-571)
Building No. 2
Washington, D.C. 20460
Tel: 703/557-8217

WATER POLLUTION

Water Programs (WH-447)
U.S. Environmental Protection Agency
401 M St., S.W., Waterside Mall
Washington, D.C. 20460
Tel: 202/426-2518

RESEARCH AND DEVELOPMENT

Publications Branch
Research Information Division (PD-674)
U.S. Environmental Protection Agency
Washington, D.C. 20460
Tel: 202/426-2175

NEWSLETTER ☆

Analytical Quality Control

ENVIRONMENTAL PROTECTION AGENCY

NATIONAL ENVIRONMENTAL RESEARCH CENTER

METHODS DEVELOPMENT and QUALITY ASSURANCE RESEARCH LABORATORY

CINCINNATI, OHIO 45268

EDITOR
J. B. Anderson

#19

October 1973

SEND US ADDRESS VERIFICATION AND CODE

In order to make our mailing list more useful, we are including a code block and code information list (pages 14 & 15) in this Newsletter. If you will enter the codes with your address, we will be able to better serve you by providing publications or revisions of interest. Completion of the code block will also fulfill the requirement of the Joint Congressional Committee on Printing that a mailing list must be updated annually.

Response to our request for address changes has been excellent. We have been able to make many changes on a weekly basis which makes our mailing list up-to-date and will insure better delivery to you.

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It has come to our attention that the microbiologists and biologists in some laboratories receiving this Newsletter are unaware of this publication and its usefulness to their fields. If this is the case please share your copy with the life sciences people or have them fill out page 15 to receive a personal copy.

CATEGORIES FOR CODE BLOCK

Fields 1 & 2 - Leave Blank

Field 3 - Organization

1. EPA
2. Federal Government
3. State
4. Local (County or City)
5. Industry
6. Consultant
7. College or University
8. Individual
9. Library
A. Non-Profit Organization

Field 4 - Office or Laboratory

1. EPA Hdqrs. Office
2. EPA Reg. Office
3. EPA Laboratory
4. USGS Laboratory
5. Other Fed. Govt.
6. Other Fed. Govt. Lab.
7. State Govt. Laboratory
8. Local Govt. Lab.
9. Independent Lab.
A. Industrial Laboratory
B. Industrial Office
C. University Lab.

Field 5 - Position

1. Administrator
2. Supervisor
3. Technician
4. Scientist
5. Services
6. Sales
7. Production
8. Education or Training
9. Student

Fields 6 & 7 - Profession

C-0 - Chemist
C-1 Analytical
C-2 Inorganic
C-3 Organic
C-4 Trace Element
C-5 Petroleum
C-6 Pesticide

B-0 - Biologist
B-1 Algologist
B-2 Macroinvertebrate
B-3 Fisheries
D-0 - Economist
A-0 - Other

M-0 - Microbiologist
M-1 - Bacteriologist
M-2 - Virologist
E-0 - Engineer
E-1 Sanitary
E-2 Chemical
E-3 Electrical

Fields 8 & 9 - Interest Areas

01. Phys. & Chem. Methods
02. Biological
03. Microbiological
04. Pesticides
05. Oil Analyses
06. Monitoring (Continuous or Intermittent)
07. Methods & Performance Studies
08. All areas (1 through 7)
09. Phys. & Chem. & Biol.
10. Phys. & Chem. & Micro.
11. Phys. & Chem. & Pesticides
12. Phys. & Chem. & Oil
13. Phys. & Chem. & Monitoring
14. Phys. & Chem., Biol. & Micro.
15. Phys. & Chem. & Methods & Performance
16. Biol. & Microbiological
17. Phys. & Chem., Methods & Performance & Monitoring

Fields 10-18* - Publications of Interest

10. Newsletter
11. Phys. & Chem. Methods Manual
12. Quality Control
13. Pesticide Methods
14. Oil Analysis Methods
15. Biological Methods
16. Microbiological Methods
17. Monitoring (Continuous or Intermittent)
18. Trace Elements Analyses

*For Fields 10 to 18 put a number 1 in the appropriate field for the publication (or revision you wish to receive). Leave blank to show no interest.

INFORMATION NEEDED WITH ADDRESS VERIFICATION

In order to update our mailing list for the Methods Development and Quality Assurance Research Laboratory Newsletter, and to include information about addresses that will enable us to distribute other appropriate publications, you are requested to verify or modify your present address and also indicate in the code block your affilliation and interest for publications. A few persons have already filled in code blocks in response to a special request. They should not use this form. Returning this page with the requested information will fulfill the requirement by the Joint Congressional Committee to annually update a request for this publication.

INSTRUCTIONS

Check your address label. If it is correct, return it with the completed code block. If there is a change in your address, return the label unaltered with the correct address in the space provided together with the completed code block.

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