



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374
[E-Mail: acharyp@azdhs.gov](mailto:acharyp@azdhs.gov)

Jane Dee Hull, Governor
James R. Allen, MD, MPH, Director

Information Update

**March 27, 1997
Update # 35**

1. This is an update on the externalization of EPA's Water Laboratory Performance Evaluation Programs WP, WS and DMR ([Information Update #34](#), dated December 30, 1996). The Environmental Laboratory Advisory Board (ELAB) PT Committee has written a letter of concern to EPA after becoming aware of rumors during the NELAC II (National Environmental Laboratory Accreditation Conference II) Interim Meeting concerning immediate externalization of proficiency programs. The PT Committee also understood that there was discussion concerning destroying samples prepared for distribution in January 1998. The following information are the excerpts from a ELAB PT Committee letter to the EPA.
 - Such an action is contrary to the Legislative mandate to EPA to protect the public health.
 - On-site certification programs vary from state to state and the EPA Performance Evaluation Program (PEP) is the only program in common nationwide that provides technically reliable performance samples essential to insuring the quality of environmental laboratory data.
 - EPA PEP externalization plan should mirror the NELAC Proficiency Testing Program with the EPA serving the same role as NELAC, incorporating its standards into the design. NELAC has requirements for a multi-provider Performance Evaluation Program. NELAC would function as the Standard Setting Authority and would have a single PT Provider Oversight Body reporting to the Standard Setting Authority. EPA could enter into a contractual agreement with an organization such as NIST to serve as the PT Provider Oversight Body. This would allow the EPA to serve only as the Standard Setting Authority until such time that NELAC standards are adopted, and following a transitional period when the program can be incorporated into NELAP (National Environmental Laboratory Accreditation Program).
 - A concern of the committee is that the NELAC standards cannot be passed until July 1997 at the earliest. Implementation of NELAP is estimated to take 2-4 years as it is a voluntary program of the states, federal agencies and territories. Many feel this is an optimistic estimate for the 49 Drinking Water primacy states to elect to participate in a new certification program. The Performance

Evaluation Program Externalization Options published in the July 18, 1996 Federal Register committed the EPA to supporting the programs until 2000.

- The PT Committee's recommendation was:

The Committee recommends that the EPA retain the current PEP as is until the year 2000 or until such a time that the NELAC PT Provider Oversight Body standards have been approved and an Oversight Body has been established and is operational. Otherwise the committee is concerned that the EPA will not allow enough time for a smooth, timely transition to a technically reliable Performance Evaluation Program.

- The Committee continues working to evaluate issues concerning EPA's externalization of the Performance Evaluation Program.
2. Arizona is represented on the NELAC PT Committee and has collated comments from the Public Health Directors of other states, Arizona government officials as well as from the Arizona Laboratory Association and forwarded the comments to the members of the ELAB PT Committee, NELAC PT Committee and to the members of the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD).

3. **Q:** Can a laboratory analyze a drinking water compliance sample for thallium by using Standard Method 3113B?

A: No. The EPA has not yet promulgated 3113B for thallium in drinking water. This is because the precision and accuracy data has not been completed for thallium by this method.

4. Some clarification regarding cyanide analyses in drinking water, waste water and ground water:

EPA defines "Amenable" as free cyanide and only total and amenable methods are approved for waste water and drinking water.

In promulgating the MCL for cyanide in the National Primary Drinking Water Regulations, EPA states that the MCL for cyanide applies to "free cyanide" (or cyanides amenable to chlorination). There is a specific EPA approved analytical method for "free" cyanide. However, EPA also has approved the use of "total" cyanide analytical methods because they are adequate to screen samples for the presence of cyanide. Where total cyanide levels are greater than the MCL, the analysis for "free" cyanide should be performed to determine whether there has been an MCL exceedance.

The Arizona Department of Environmental Quality (ADEQ) has clarified that the aquifer water quality standards for cyanide applies to "free" cyanide. However, by adding the phrase "as free cyanide", ADEQ does not intend to limit the use of "total" cyanide analytical methods for initial screening of ground water. If cyanide is detected in ground water using the total cyanide methods, then an analysis for free cyanide should be performed to determine compliance with the aquifer water quality standard.

SM 4500 CN-I is a "weak acid dissociable" cyanide method. This has been referred to as "free" cyanide, however, it is not an EPA approved method and should not be used for compliance monitoring.

5. If you have any questions regarding the Updates, or if you have any technical questions that need clarification, please call or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training at the Laboratory Licensure. A [table of contents](#) to all the Information Updates published is also available.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357

The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374

Jane Dee Hull, Governor
James L. Schamadan, MD, Acting Director

DATE: December 2, 1997
TO: Laboratory Director and QA Manager
FROM: Dr. Barbara J. Erickson, Ph.D., Bureau Chief
SUBJECT: Information Update #40
NOTE: If any problems occur with this web site, please call 1-800-952-0074 or (602) 255-3454 and ask for Technical Resources and Training. Thank You.

1. The methods which are required for compliance testing, that are not included in the current Arizona Environmental Rules dated 7/11/1997, are in the process of being added to the upcoming amended Rules. The licensed laboratories will be kept informed on the progress of the amended Rules.
2. An update on 8015AZ; It is once again going through some revisions. The following changes are being proposed to be made to the 10/23/97 draft version; a) The method is being made applicable to water samples also. b) The holding times and the reporting limits are being discussed with the various program staff of Arizona Department of Environmental Quality (ADEQ). c) Gasoline can be quantitated using GC/PID, after a laboratory has done side by side studies to prove that a PID does not yield statistically lower results for fresh and degraded gasoline contaminated samples compared to a FID. We will keep you updated.
3. Since method 8021 has an expanded list of new chemical contaminants which would add to the cost of analysis, over the past several months, representatives from ADEQ programs, Arizona Department of Health Services (ADHS), and the Arizona Laboratory Association (ALA) have met to discuss a standard list for EPA 8021, to be known as 8021AZ. The following list identifies the contaminants on what will be known as 8021AZ standard list. A shorter list i.e., BTEX may still be requested or additional compounds listed in the current promulgated version of 8021 can also be requested.

**8021AZ
Standard Arizona VOC GC List**

<u>Aromatics</u>	<u>Halocarbons</u>	
Benzene	Bromodichloromethane	1,1- Dichloroethene
Ethylbenzene	Bromoform	trans- 1,2- Dichloroethene
Toluene	Bromomethane	cis- 1,2- Dichloroethene
Xylenes (total)	Carbon tetrachloride	1,2- Dichloropropane

Chlorobenzene	cis- 1,3- Dichloropropene
Chloroethane	trans- 1,3- Dichloropropene
Chloroform	Methylene chloride
Chloromethane	1,1,2,2- Tetrachloroethane
Dibromochloromethane	Trichloroethene
1,2- Dichlorobenzene	1,1,1- Trichloroethane
1,3- Dichlorobenzene	1,1,2- Trichloroethane
1,4- Dichlorobenzene	Tetrachloroethene
Dichlorodifluoromethane	Trichlorofluoromethane
1,1- Dichloroethane	Vinyl Chloride
1,2- Dichloroethane	

4. Two environmental training workshops are being planned for January 13 and 14, 1998 at Francisco Grande Resort and Golf Club, 26000 Gila Bend Highway, Casa Grande, Arizona 85222. Tel: (520) 836-6444. Overnight lodging is available at the resort.

A 3-hour *Data Evaluation* seminar is planned for the morning of the 13th from 9:00 am - 12:00 noon. Evaluation, validation, compliance and data usability; Quality control, Acceptance limits, Quality control result evaluation; Streamlining and PBMS data evaluation will be covered. Informal discussions are planned for the afternoon. The presenter and the Laboratory Consultants (auditors) will be available to answer your questions.

A 6-hour *Analyst Training* seminar is planned for January 14th from 9:00 am to 4:00 pm. The following topics will be covered; Introduction - Why train, why certify, Laboratory & analyst certification, Formal academic education deficiencies, Legal requirements of foundation evidence, Lack of laboratory skills, Lack of environmental analysis knowledge; Training Programs - Introduction to QA and lab skills training 3 hour program, Basic analyst training 40 hour program; Evaluation - Method proficiency; Documentation and Training Files - Resume, training certificates, PE sample results, System audit results, MDL, IDA, certification exam results.

The presenter for both the workshops is Dr. Roy-Keith Smith. Dr. Smith is the Analytical Methods Manager/QA Manager/Organics Technical Director, Analytical Services Inc. 110 Technology Parkway, Norcross, Ga, since March 1992. He is responsible for analyst technical training, administration of Quality Assurance Program, obtaining and maintaining lab certification/validations, PE sample program management, governmental and regulatory agency contact/response, and serving as a technical expert in all aspects of laboratory operations. He has taught several College Chemistry courses, Hewlett-Packard technical courses and numerous other technical courses. He is the author of several technical books, including *Environmental Laboratory Data Evaluation* and *Handbook of Environmental analysis*.

There will be a registration fee of \$25.00 per person/workshop. The registration fees will cover the catered lunches provided both days. Please call Cristy Finan at (602) 255-3454 for registration before December 24, 1997.

5. If you have any questions regarding the Updates, or if you have any technical questions that need

clarification, please call or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training at the Laboratory Licensure. A [table of contents](#) to all the Information Updates published is also available.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357
The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374
[E-Mail: acharyp@azdhs.gov](mailto:acharyp@azdhs.gov)

Jane Dee Hull, Governor
James R. Allen, MD, MPH, Director

Information Update

**October 23, 1997
Update # 39**

1. Please contact the office to see the results of the Client Satisfaction Survey that was mailed to you in September. Thank you for your participation. We also received the constructive comments from 57 laboratories and it will be used to improve our services offered to you.
2. The method, $C_6 - C_{32}$ *Hydrocarbons in Soil - 8015AZ*, is finally ready to be submitted to the Director of the Arizona Department of Health Services for promulgation. This method is an Arizona consensus method and was developed with collaboration among the Arizona Department of Health Services, Arizona Department of Environmental Quality and the Arizona Laboratory Association. This method replaces modified 8015, 418.1AZ and BLS-191. This method can be used to quantitate the individual ranges; $C_6 - C_{10}$, $C_{10} - C_{22}$, $C_{22} - C_{32}$ and also combination of ranges; for e.g., $C_6 - C_{32}$ and $C_{10} - C_{32}$ (depending on the client needs). After this method is promulgated by Arizona, the copies of the method will be available to the Arizona licensed laboratories.
3. If you have any questions regarding the Updates, or if you have any technical questions that need clarification, please call (602) 255-3454 or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357
The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374
E-Mail: acharyp@azdhs.gov

Jane Dee Hull, Governor
James R. Allen, MD, MPH, Director

Information Update

**August 15, 1997
Update # 38**

1. All the licensed laboratories should have received a letter dated July 25, 1997 along with a copy of our new Rules. All Arizona licensed laboratories must come into compliance with these new rules. Our office will allow a phase in time period for all laboratories until September 1, 1997 for a switch over of SOPs and Methodologies, listed in the new rules, to be in compliance with the new rules.

Arizona Laboratory Licensure does not require the laboratories to use SW-846 Update III for Arizona compliance testing until Arizona Laboratory licensure incorporates this Update into their rules. If a laboratory wishes to be certified for methods in Update III or for the methods that are not in the current rules, due to their clients needs, they will have to follow the procedure described in R9-14-608B (Arizona Laboratory Licensure Rules).

Arizona Laboratory Licensure will promulgate Update III after the promulgated version of Update III is mailed out to the environmental community by USEPA. The Arizona Laboratory Licensure Program will then go through a promulgation process of incorporating Update III into their rules. All the Arizona licensed laboratories will be informed through the Information Update when the Update III is promulgated in Arizona.

2. The following information was obtained from *Labcert Bulletin*, dated June 1997, published by USEPA, Office of Ground Water and Drinking Water, Cincinnati, Ohio.
 - a. Many in the laboratory community are aware that the EPA has been planning to externalize the water laboratory performance study program. The EPA has decided, after considering public comment, to enter into a Memorandum of Understanding (MOU) with National Institute of Standards and Technology (NIST). This MOU will delineate the role of NIST as the performance evaluation study provider accreditation authority and EPA's role as the standard setting authority. Details can be found in *Federal Register*, Vol. 61, No. 139, Thursday, July 18, 1996. The last EPA provided study will be shipped in 1998. For information, contact Donna Sirk @ (310) 975-3976, fax (310) 926-8671 or e-mail donna.sirk@nist.gov or call EPA's Safe Drinking Water Hotline @ (800) 426-4791, Monday through Friday from 9:00 a.m. to 5:30 p.m. eastern standard time.

- b. On January 4, 1995, revision 5.4 of USEPA Method 200.8, was promulgated for compliance monitoring of mercury in drinking water. However, Revision 5.4 can only be used for the determination of mercury by "direct Analysis" when an acid preserved sample has a turbidity of <1 NTU. Unfortunately, when this option (for the determination of mercury) was added to Method 200.8, Section 8.1, which addresses holding times, was not revised to include the required holding time limitation for mercury of 28 days (CFR 141.23). Please make a note of this restriction in your copy of Method 200.8. The holding time begins immediately following the completion of sample collection. For further information contact Ted Martin @ (513) 569-7312.
- c. As most of you are aware by now, the long awaited radionuclide final rule was promulgated on March 5, 1997. This rule approved 66 additional radionuclide methods for compliance monitoring of drinking waters. The methods in the approved rule were originally proposed in July 1991. This rule does not withdraw any compliance methods previously approved nor does it change any MCLs or monitoring requirements for radionuclides. (*None of these new methods are in the current Arizona Rules. If you would like be certified for these methods before they are incorporated into our rules see the reference in item # 1.*)
- d. On March 28th, the first of two proposals that would radically change procedures for approving analytical methods for compliance monitoring under the Safe Drinking Water Act and Clean Water Act was published in the *Federal Register*. This proposal, which was developed by the drinking and wastewater programs and is called *Streamlining*, would allow immediate use of modifications to current compliance methods, and adopt a performance-based approach to approving new technologies for compliance monitoring. This proposal describes standardized QC procedures, method validation steps and acceptance criteria required to obtain approval of a new or modified method. It would reduce the need for Agency review of Alternate Test Procedures, because 95% of the caseload now involves review of method modifications. It would also eliminate the urgency to update the tables of approved methods in the *Code of Federal Regulations* when new versions of methods are published by EPA or organizations, such as AOAC, ASTM and Standard Methods. USEPA may also propose to extend this process to biological methods. A final rule is planned for 1998. This Streamlining process would be a first step towards a performance-based approach to environmental measurements.

This Streamlining process of Office of Water (OW) approach differs from the Performance-based methods system (PBMS) in the way it handles approval of new methods. OW would allow modified compliance methods to be used without notifications; however, new methods or technologies would continue to require formal Agency review because the QC procedures and acceptance criteria specified in regulations for that analyte may have to be adapted to the characteristics of the new technology. Under PBMS any method that meets the performance criteria for an analyte could be used for compliance monitoring without notifying the Agency.

- e. In September 1996, Office of Ground Water and Drinking Water approved *Colilert-18* to determine the presence or absence of total coliforms and *E. coli* in drinking water under the TCR (40 CFR 141.21) and to enumerate total coliforms in source water under the SWTR (40 CFR 141.74).
- f. Laboratories may use the *Quanti-Tray* tests to determine the presence or absence of total coliforms and *E. coli* in drinking water under the Total Coliform Rule (40 CFR 141.21).
- g. Millipore corporation, the manufacturer of *Colisure* medium has notified EPA that a change in

the manufacturing process of the *Colisure* medium has resulted in a granulated product which is visibly different from the original powder version. The formulation of the granulated product is the same as that approved for drinking water and surface water and the Office of ground Water and Drinking Water has determined that no additional approval is necessary.

- h. The Working Group on Waterborne Cryptosporidiosis has developed a publication, *Cryptosporidium and Water; A Public Health Handbook-1997*, to help state and local health departments and water utilities prepare for and respond to reports of *Cryptosporidium* in drinking water and source waters. The objectives of the Handbook are to provide tools for prevention and investigation of *Cryptosporidium* and other pathogen outbreaks. This document can be ordered from American Water Works Association @ 800-926-7337. The cost is \$20.00 for members and \$30.00 for non-members.

3. Web sites of interest and some important phone numbers:

- o Now you can visit EPA microbiology home page @ <http://www.epa.gov/microbes>.
- o <http://www.epa.gov/ORD/whatsnew.htm> - ORD has a site in "Whatsnew" and lists the NERL manual of manuals.
- o The Safe Drinking Water Hotline as well as a E-mail Hotline can be found @ <http://www.epa.gov/watrhome/pubs/drinklink.html>. The Hot line phone number is: (800)-426-4791
- o The ICR site can be found @ <http://www.epa.gov/OGWDW/icrsom.html>
- o EPA Solid Waste Methods Information Communication and Exchange (MICE) has a new fax number (703) 698-6101 and an Internet email address MICE@LAN828.EHSG.SAIC.com. Your questions on SW 846 methods can be either faxed or e-mailed.

4. The National Environmental Laboratory Accreditation Conference(NELAC) is a voluntary association of states, federal agencies, and tribal governments established to develop national standards for environmental laboratory accreditation. Established in 1955, NELAC has up to this point been involved in creating an organizational framework and writing accreditation standards. A majority of the standards were adopted in July of 1997, following the third annual meeting of NELAC (NELAC III). The changes to the Proficiency Testing would be adopted as amendments in the future. You will be kept informed on the progress of NELAC through this Update.

5. Copies of all the information updates can be found on the ADHS Lab Licensure's [Technical Training](#) web site.

6. If you have any questions regarding the Updates, or if you have any technical questions that need clarification, please call or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training at the Laboratory Licensure. A [table of contents](#) to all the Information Updates published is also available.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357
The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374
[E-Mail: acharyp@azdhs.gov](mailto:acharyp@azdhs.gov)

Jane Dee Hull, Governor
James R. Allen, MD, MPH, Director

Information Update

**June 10, 1997
Update # 37**

1. The Arizona revised Administrative Rules for the environmental Laboratory Licensure Program have been approved by the GRRC (Governors Regulatory Review Council) and will be submitted to the Secretary of State's office for promulgation. Upon promulgation the rules will be implemented.
2. As per a communication with EPA MICE (Methods Information Communication and Exchange, Tel: 703-821-4690), SW 846 Update III is being mailed out in June to all the subscribers and that the newer methods will be implemented by EPA once they are mailed out. Unlike drinking water methods no transition period is given for the implementation of the newer methods for the solid waste.
3. Recommendation from MICE regarding setting laboratory's matrix spike limits for 8000 series methods. Laboratories can set their own limits based on their historical data. Their recommendation was to set individual limits for different matrices; For e.g., TCLP, low level waste, high level waste, oil and so on.
4. Since the EPA method 608 is not specific enough for the multi-peak components (PCBs, chlordane and toxaphene), Laboratory Licensure Program has set the following QC criteria for the method:
 - a. **Initial Calibration:** For each single-component pesticide, a three level calibration curve must be established. Initially, only one Aroclor is required to have a full calibration curve, however, all the other multi-peak components must be shot at the laboratory reporting level. In addition, if any of the multi-peak components is detected in any sample, then the analyst must run a full curve for that analyte detected.
 - b. **Calibration Verification:** For each single-component pesticide, run one of the standards and quantitate. Run the mid-point aroclor standard used for the full initial curve and quantitate. Run a toxaphene and chlordane standard at any level, for pattern recognition.
 - c. **QC Check and/or Matrix Spike:** Spike at any level for each single-component pesticide and any one of the multi-peak components, that can be quantitated.
5. It is not required for all the replicates to be done on one day for Method Detection Limit Studies.

However, the selection of the replicates should not be based on obtaining the lowest MDL value. For a data point to be discarded, it must be a statistical outlier and the laboratory's protocol must be documented. MDL spike level should not be more than 10X greater than the resulting MDL. It is best to follow the 40 CFR suggestion of running 2 aliquots and checking them first for appropriate spiking level. If they are acceptable then only 5 other aliquots are required. The laboratories could also base the spiking levels on the previous year's MDL study results.

For 608, 8080 and 8081, the MDL study for each parameter (single component-pesticides, aroclors, chlordane and toxaphene) must be established. Although a method detection limit is a useful benchmark for evaluating and comparing method sensitivity, it may not be an appropriate indicator of the level at which a multi-peak compound can be identified. Laboratory Reporting Limits established should be able to identify the peak patterns for multi-peak compounds.

6. Questions have been raised by several laboratories regarding the requirements for the initial method capability study if a method is being set up for a partial compound list. Arizona Department of Health Services has several concerns about method validation for only a partial list of target analytes.
 - a. Coelution, partial or complete, is a problem if a laboratory analyzes only a few compounds out of a much larger list. If the laboratory never analyzes the other compounds in a standard or sample and they optimize conditions for just the few analytes of concern, and if the other analytes in the EPA list are in the sample, they could have coelution problems of which they are not aware.
 - b. For dual column analyses (i.e. PCBs/Pesticides), a laboratory must be careful not to shorten the run time so that even a second column would not adequately separate the possible coeluters.
 - c. For GC/MS, coelution is an issue if the same quantitation ion is used for the coeluting compounds or if the secondary ion of a coeluter is used as the quantitation ion of the other coeluter (i.e. Indeno[1,2,3-cd]pyrene and Dibenz[a,h]anthracene). Also, a laboratory must be careful not to shorten the run time to the point where column overloading occurs or many compounds may be coeluting and clean spectra cannot be obtained for each compound, causing identification problems.

To address the above concerns, while taking into consideration the needs of the laboratory community, the Office of Laboratory Licensure has developed the following criteria for a partial list and or a complete list method validation.

- a. Due to the mass selectivity of the detector, our criteria is that a laboratory may perform partial list method validation for GC/MS or LC/MS methods as long as different ions are used for quantitation of coeluters. The laboratory must also ensure that strong secondary ions of a coeluting peak are not being used as the quantitation ion for the other coeluting peak .
- b. For dual column analyses (i.e. pesticides and PCBs), as long as a laboratory can demonstrate that under routine operating conditions all components are separated between the two columns, it is acceptable not to show full list capability.
- c. For single column analyses, the laboratory must use a second dissimilar column or GC/MS confirmation. The laboratory must also demonstrate that under routine operating conditions, all components are separated between the two columns. It is then acceptable not to show full list

capability.

- d. Confirmation is required for all reportable compounds if a single column GC analysis was performed, if historical data of the confirmation of the compounds are not available. Qualitative confirmation must be performed on one sample per site in order to characterize that site with the presence of specific contaminants. If the project continues, the previously performed confirmation analyses remains valid. If a new compound is found in the site, it must be confirmed. If the laboratory does not want to comply with the confirmatory requirements, as stated in the methods, the laboratory must qualify test reports by indicating that GC provides a tentative identification. A foot note will be required to be included addressing the confirmation requirements. The footnote should state whether the identification is tentative and needs confirmation or the identification has previously been confirmed. Please note that this qualifier still requires that the method QA/QC criteria are met. This footnote is not to be used as an excuse for poor chromatography or sloppy data interpretation when the method will yield enough information for reasonable data interpretation accuracy. Be advised that the Arizona Department of Environmental Quality (ADEQ) may or may not accept data for compliance purposes with the said qualifier. The Office of Laboratory Licensure strongly urges the laboratories to check with the client and or ADEQ before adopting this procedure.
 - e. It is the laboratory's responsibility to ensure that the above concerns have been adequately addressed for either single or dual column analyses. If during the course of a survey ADHS has further concerns about the identification and quantification of analytes, the laboratory will be required to perform a Proficiency Evaluation (PE) sample designed by ADHS that would demonstrate that analytes are being accurately identified and quantified (These results would indicate whether further method development or GC/MS confirmation is required).
7. Our office requires that laboratories notify the clients in the final report when a dilution was required for sample analyses. The reporting limits should get multiplied by the dilution factor. If the MDL is a statistical number, it does not get multiplied but if it is a quantifiable number included in the curve, then it should get multiplied.
 8. If you have any questions regarding the Updates, or if you have any technical questions that need clarification, please call or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training at the Laboratory Licensure. A [table of contents](#) to all the Information Updates published is also available.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357
The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.



*Office of Laboratory Licensure,
Certification & Training*

3443 N Central Avenue, Suite 810
Phoenix, Arizona 85012
(602) 255-3454
(602) 255-1070 FAX
Technical Support Hot-Line 1-800-592-0374
[E-Mail: acharyp@azdhs.gov](mailto:acharyp@azdhs.gov)

Jane Dee Hull, Governor
James R. Allen, MD, MPH, Director

Information Update

**May 1, 1997
Update # 36**

1. Following are excerpts from a memorandum dated April 8, 1997 received by the Office of Laboratory Licensure from EPA Region IX on the approval status of the Method 1664.
 - At present the only analytical method approved for oil and grease monitoring under the Federal and State NPDES and Pretreatment Programs is EPA Method 413.1. The memorandum is a written response to the numerous laboratory requests EPA received to change Method 413.1 to Method 1664, before it is promulgated, due to the difficulty and expense of obtaining Freon. Method 1664 uses hexane as the extraction solvent. It is currently moving through the approval process for NPDES and Pretreatment compliance monitoring and is proposed to replace Method 413.1.
 - US EPA Region IX will approve interim limited use of EPA Method 1664 for the analysis of oil and grease on a case-by-case basis. The interim approval will be valid until Method 1664 is officially promulgated as a final rule in the Federal Register or is withdrawn from consideration by EPA.
 - The results obtained by this method may not be comparable to those obtained by using Method 413.1 due to the difference in extraction efficiency of the two solvents. It is important to be aware that EPA Region IX, State or Pretreatment Control Authorities may take enforcement action based on the results that exceed permit limits. Although most requests have come from laboratories, because of the compliance issue, Region IX will only accept requests to use Method 1664 from the discharger. Region IX will send a notification of approval to the applicant after review of the application.
 - The restrictions and requirements of Region IX's case-by-case interim limited use approval of Method 1664 are summarized below:
 - a. Interim limited approval is valid until Method 1664 is officially promulgated or is withdrawn. If Method 1664 is withdrawn, dischargers using Method 1664 must return to the previously approved method (i.e., Method 413.1 or its replacement).
 - b. Approval of the method will be limited to the discharger for which approval is issued and only in the states and territories within Region IX.

- c. Dischargers must acknowledge that results obtained using Method 1664 may differ from those of 413.1 and must agree to report and be bound by the results of the method for purposes of determining NPDES compliance and/or pretreatment compliance.
 - d. Dischargers must use a laboratory certified by the state to perform oil and grease analyses by the methods identified in 40 CFR Part 136.3.
 - e. The exact date of change to Method 1664 must be documented by the discharger.
 - f. Method 1664 must be used without modifications by the laboratory. If modifications noted in the Method are exercised, the laboratory must apply to the Region through the ATP process identified in 40 CFR Part 136.5.
- o Dischargers may wish to have laboratories perform side-by-side analysis using both methods on the same samples should comparison of results become necessary in the future.
 - o Direct any questions to Vance Fong, Quality Assurance Program Manager at (415) 744-1492 or Robert Wills, CWA Compliance Advisor at (415) 744-1910.

A note from the Arizona Office of Laboratory Licensure: The laboratories must send in requests for certification of the Method 1664 to the Office of Laboratory Licensure before running the test for compliance samples.

2. **Summary of EPA's Fact Sheet (EPA-821-F-97-001, January 1997): Streamlining EPA's Test Methods Approval Program:**

EPA is proposing a regulation to streamline EPA's program for approving laboratory test procedures and quality control measures that are used to gather data and monitor compliance under the Clean Water Act (CWA) and the Safe Drinking Water Act (SDWA). It demonstrates EPA's commitment to reducing the regulatory burden imposed on industries and municipalities, the technology development community, and the laboratory services community. It also demonstrates EPA's commitment to lowering the barriers to innovative technology.

The proposed regulation will make it easier for the affected communities to modify an approved reference method by streamlining the regulatory requirements and it will provide an opportunity for non-EPA organizations to develop and gain approval of entirely new methods. The objective of the proposal is to encourage early introduction and use of innovative technologies that reduce costs, overcome analytical difficulties, and enhance data quality. The proposal safeguards to ensure that method modifications produce data of equivalent or superior quality to the data produced by approved methods.

The proposed streamlining rule;

1. increases the flexibility of affected parties to modify existing test procedures without regulatory action
2. expedites approval of new and modified test procedures
3. establishes and requires the use of standardized Quality Control (QC) and QC acceptance criteria

4. recommends use of standard data elements for reporting test results.

This proposal sets the stage for harmonization of waste and drinking water test procedures.

EPA has developed three supporting documents listed below to help the regulated community implement this regulation and the copies can be obtained through the U.S. EPA National Center for Environmental Publications and Information (NCEPI), 11029 Kenwood Road, Cincinnati, OH 45242 (phone: 513-489-8190). The complete text of the Federal Register notice containing the streamlining proposal and the full text of the supporting documents may also be viewed or downloaded on the Internet at <http://www.epa.gov/ost> (Select "Rules open for public comment" and then select the documents listed below).

1. Guide to Method Flexibility and Approval of EPA Water Methods (EPA-821-D-96-004)
2. Guidelines and Format for Methods to be Proposed in 40 CFR Part 136 or 141 (EPA-821-B-96-003)
3. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (EPA-821-B-96-005)

For additional information concerning this action you may also contact Marion Thompson at U.S. EPA Office of Water, Engineering and Analysis Division (4303), 401 M Street, S.W. Washington, D.C. 20460 (phone: 202-260-7117).

3. Notice of Approved/Accepted Methods by EPA

1. revised December 30, 1996 versions of Palintest Method Nos. 5001 and 5002 for determining free and total chlorine in potable water; are acceptable versions of Standard Method 4500 Cl-G, approved by EPA for determining free and total chlorine in drinking water monitoring.
2. Perkin Elmer Method ENVA - 100, "The Application of Flow Injection Technology to Automating Cold Vapor Mercury Analysis", dated January 9, 1997; is an acceptable version of the 1994 version of Method 245.1, approved by EPA for determining mercury in drinking water.
3. Hach Method No. 8370, Revision 1, dated 10/8/96; is an acceptable version of approved 18th Edition Standard Method 4500-Cl-G for Total Chlorine in drinking water.

Contact Roseanne Sakamoto, Environmental Scientist, Quality Assurance Office, PMD-3, Region IX, USEPA at 415-744-1535, if you have questions.

4. A free audio conference on "Cryptosporidium and Water" sponsored by Public Health Foundation, Washington D.C. will be held on May 20, 1997, from 12:45 to 2:45 pm, at the State Laboratory library, First floor, 1520, W. Adams, Phoenix. Please call Cristy at (602)- 255-3454 to register.
5. Closing arguments for the Arizona Department of Health Services' Administrative Hearing for the proposed Notice of Suspension, Civil Penalties, and Revocation of Westech's Laboratory License is scheduled for May 6, 1997 at 9:30 a.m. The location for this Hearing will be held at 1647 East Morten, Phoenix, Arizona. The Hearing Officer, Timothy Barnes/ALJ further ordered that the parties shall file (and exchange) Proposed Findings of Fact, Conclusions of Law and Recommended Decision at this Hearing. Any questions should be directed to Steven Baker, Environmental Laboratory Program Manager at (602) 255-3454.

6. Request participation from environmental community:

Public Health is in a stage where it has become crucial that its mission and roles be included in the creation of the new "integrated health system". Both medical and environmental health professionals from public health, environmental and clinical laboratories are challenged to be participants in this "re-invention" process.

The Center for Disease Control and Prevention (CDC) and the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD) have formed a "Partnership for the Future: Exploring Roles of Public Health Laboratories". This partnership provides a forum to bring together public and private sector leaders and other stakeholders, to discuss the future of public health in relation to public health laboratories and establish a framework to build a common understanding of the challenges facing public health laboratories.

Two live interactive video broadcasts, the first aired on March 26, 1997 and the second to be aired on May 15, 1997, are meant to develop and strengthen the partnerships with key stakeholders. We have been challenged to develop a business plan to take a proactive stance for public health in Arizona. Your input into this process of developing the core functions of a public health laboratory in Arizona, which are "assessment", "policy development" and "assurance", is requested.

Any person interested in participating in this Program may obtain additional information from Wyn Nimmo, program coordinator, at (602) 255-3454.

7. If you have any questions regarding the Updates, or if you have any technical questions that need clarification, please call or send [e-mail](#) to Prabha Acharya, Program Manager, Technical Resources and Training at the Laboratory Licensure. A [table of contents](#) to all the Information Updates published is also available.

Permission to quote from or reproduce materials from this publication is granted when due acknowledgment is made.

This message is available in alternative format by contacting Wesley Press at (602) 542-0357
The [Arizona Department of Health Services](#) does not discriminate on the basis of disability in administration of its programs and services as prescribed by Title II of the Americans with Disability Act of 1990 and Section 504 of the Rehabilitation Act of 1973.