Max H. Dodson

FINAL REPORT

PHASE I/II/V IMPLEMENTATION WORKGROUP

APPENDICES

Submitted to

James R. Elder, Director
Office of Ground Water and Drinking Water
U.S. Environmental Protection Agency

Prepared by

U.S. EPA Region 8
Drinking Water Branch

March 1993

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PREFACE

This appendix contains both the original memorandum from Region 8 requesting the formation of a workgroup and the response from the Director of the Office of Ground Water and Drinking Water.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

Ref: 8WM-DW

MAR 19 1992

MEMORANDUM

TO: James R. Elder, Director
Office of Ground Water and Drinking Water

FROM: Max H. Dodson, Director
Water Management Division

SUBJECT: Integration of Phase I, II, and V Rules

After the Phase V package is promulgated, the stage will be set for water systems to begin monitoring under the Standard Monitoring Framework in January of 1993. Having served on the Phase V Workgroup, Region VIII has spent much time examining the implementation issues involved with integrating the Phase I, II, and V regulations. The closer we look, the more concerns we find. Because of this, I propose the development of an "implementation team" that is empowered to review the current situation, using TQM principles to develop an effective strategy for chemical monitoring implementation.

The Standard Monitoring Framework and the July 1, 1991, Federal Register VOC amendments went a long way in consolidating the monitoring requirements of the inorganic and organic chemicals. As the implementation date of Phases II and V approaches, however, it becomes clear that there are unresolved (from Phase II) and new (from Phase V) issues that present obvious conflicts, as well as subtle ramifications. Among other concerns, major issues include "unregulated contaminant" monitoring and the phasing in of monitoring by system size.

Although there may be time to address some of the issues in the promulgation of Phase V, the resolutions will be, at best, "band-aid" fixes. What is really needed is to step back and take another comprehensive look at the chemical monitoring requirements in light of current issues and future regulatory packages. Because implementation takes place in the Regions, the Team should have a strong Regional orientation. In fact, it makes good sense to have the Team led or chaired by a Region. Although this would be a new way of doing things, I believe this approach would foster improved planning, communication, and networking, resulting in a strategy with maximum buy-in from all participants.

Participants would include representatives from the following groups:

Region III (Phase V workgroup)
Region V (Phase V workgroup)

Region VIII (Phase V workgroup)
OGWDW Drinking Water Standards Division
- Regulation Management Branch (Phases II, V, and VI regulation managers)
- Drinking Water Technology Branch (Methods and Monitoring Section)

OGWDW Enforcement and Program Implementation Division
- Drinking Water Branch (Regional Coordination Section)
- Enforcement Branch (Data Management and PWS Compliance & Enforcement Sections)

OGWDW Technical Support Division
Drinking Water Quality Assessment Branch
Office of General Counsel

The Team would evaluate the current situation and develop a strategy to effect whatever change possible before January 1, 1993. Depending on the extent of change determined to be necessary, the result would be publication in the Federal Register ranging anywhere between a technical amendment and a notice of proposed rule-making. The focus of the Team would be on real-world implementation of the regulations with attention paid to all implementation issues (monitoring, analytical methodology, reporting, costs, data management, etc.). The intent would not be to make any major changes to the "content" of the regulations (contaminants, MCLs, etc.), but to make modifications necessary to smoothly integrate the monitoring requirements of all inorganics and organics, including the unregulated contaminants.

Although the initial meeting would occur with all participants gathered in one place, this would be an opportunity to pilot TQM principles and tools in a situation where routine gatherings are not possible. The Team would function using mailings, conference calls, and tele-conferencing (where beneficial). The important concept here, Jim, is to have full interactive participation, decision making, and attainment of consensus by all stakeholders. This has <u>not</u> been our experience with recent national workgroups upon which the Region has served. By forming such a group, we have an opportunity to develop protocols that can improve the way future workgroups function and resolve implementation concerns.

Please call me or Pat Crotty to discuss this issue further.

cc: Bob Blanco, WH-550E
Mike Conlon, WH-550D
Alan Stevens, TSD
Drinking Water Branch Chiefs, Regions I-VII, IX, X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 21 1992

OFFICE OF WATER

MEMORANDUM

SUBJECT: Drinking Water Regulation Implementation Issues

FROM: James R. Elder, Director
Office of Ground Water and Drinking Water

TO: Max H. Dodson, Director
Water Management Division, Region VIII

I welcome your suggestion of March 19, 1992, to form a work group to consider implementation issues associated with drinking water regulations. Now that Phase II is about to become effective and Phase V is almost promulgated, it is a good time to focus on practical implementation issues. Hopefully, "fixes" can be generic and incorporated into subsequent rules. The specific problems you raised in Red Border review of Phase V have been addressed in that rule but, as you mentioned, these are "band-aid" fixes that can probably be improved upon.

I agree that regions and headquarters need to work closely together to resolve these issues. It would also be useful to have one or two State representatives heavily involved. I accept your suggestion that Region VIII chair the work group. If any regulations are forthcoming from that effort, DWSD and EPID will need to assure that the regulations are consistent with our overall drinking water regulatory philosophy and to guide the regulation through the Agency's review process.

We hope that you will be able to convene the work group shortly. Your suggestion to rely on teleconferencing and other means to reduce travel costs is a good one. We hope this joint effort will promote good working relationships and improve the overall implementation of our regulations.

cc: Water Regional division directors I-VII, IX, X
Regional Drinking Water Branch Chiefs
OGWDW division directors
Lee Schroer, OGC

B

APPENDIX

B

PREFACE

This appendix lists the Workgroup membership. Members were chosen to represent each of the EPA Regions (either a state or a Regional person) and each of the Office of Ground Water and Drinking Water division offices. Listed next to each member is the constituency they represented.

PHASE I/II/V IMPLEMENTATION WORKGROUP MEMBERSHIP LIST

REPRESENTING	NAME / OFFICE	CONSTITUENTS
Region I	Mark Sceery U.S. EPA Region I	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Region II	Mike Lowy U.S. EPA Region II	New Jersey, New York, Puerto Rico, Virgin Islands
Region III	Jackie Pine U.S. EPA Region III	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia
Region IV	Joe Alan Power Alabama Department of Environmental Management	Florida, Georgia, Kentucky, Mississippi, N. Carolina, S. Carolina, Tennessee, Region IV Office
Region V	LouAllyn Byus Illinois EPA	Indiana, Michigan, Minnesota, Ohio, Wisconsin, Region V Office
Region VI	Judy Duncan Oklahoma State Department of Health	Arkansas, Louisiana, New Mexico, Texas, Region VI Office
Region VII	Pat Ritchey U.S. EPA Region VII	Iowa, Kansas, Missouri, Nebraska
Region VIII	Jack Long North Dakota Department of Health and Consolidated Laboratories	Colorado, Montana, South Dakota, Utah, Wyoming, Region VIII Office
Region IX	Bill Robberson U.S. EPA Region IX	Arizona, California, Hawaii, Nevada, American Samoa, Guam
Region X	Ginny Stern Washington Department of Health	Alaska, Idaho, Oregon, Region X Office
Drinking Water Standards Division	Jan Auerbach Regulation Management Branch U.S. EPA, OGWDW	Drinking Water Technology Branch, Office of Policy, Planning, and Evaluation, Office of General Counsel, Office of Research & Development
Enforcement & Implementation Division	Mike Muse Drinking Water Branch U.S. EPA, OGWDW	Enforcement Branch, Office of Enforcement, Association of State Drinking Water Administrators
Technical Support Division	Dick Reding Quality Assessment Branch U.S. EPA, OGWDW	Water Supply Technology Branch
Ground Water Protection Division	Tom Belk Source Assessment & Information Management Branch U.S. EPA, OGWDW	Technical and Regulatory Analysis Branch, State Programs & Policy Integration Branch, Underground Injection Control Branch
Workgroup Coordinator	David Schmidt U.S. EPA Region VIII	

C

APPENDIX

C

PREFACE

Total Quality Management concepts and tools played an important role in the operation of the Workgroup.

The **Participative Management Scale** shows different decision-making management styles. The Workgroup operated under a "D" style, that is, it was developing recommendations that would go to the decision-maker, Jim Elder.

The **FADE Wheel** is a quality action team tool that was adapted for use by the Workgroup. Specific implementation problems of the Phase I/II/V rules were **focused** on, information was **analyzed**, and proposals (recommendations) were **developed**. The Workgroup will not be executing its recommendations, but it has modified the FADE wheel so that "E" stands for **evaluate**. Over the next few months, the Workgroup will track OGWDW's response to its recommendations and the members will report back to their constituents.

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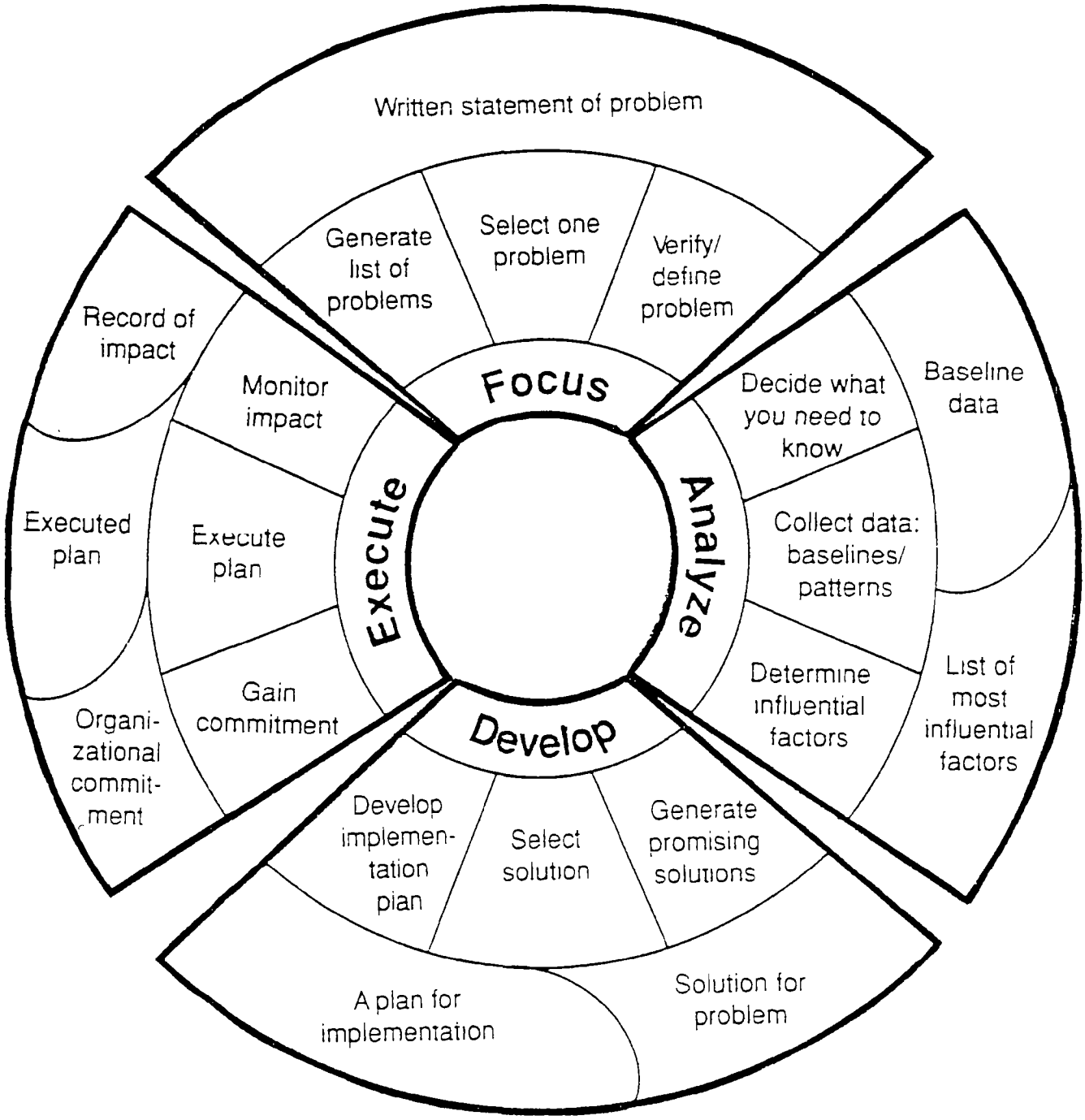
PARTICIPATIVE MANAGEMENT SCALE

A	*B*	*C*	*D*	*E*	*F*
Tell	Sell	Gather Info	Recommendation from Group	Group Decision (w/Mgmt. Veto)	Group Decision (w/o Mgmt. Veto)

FADE Wheel


Written statement of problem
Generate list of problems
Select one problem
Verify/ define problem
Focus
Record of impact
Monitor impact
Executed plan
Execute plan
Execute
Organi-zational commit-ment
Gain commitment
Develop implemen-tation plan
Select solution
Develop
A plan for implementation
Generate promising solutions
Solution for problem
Decide what you need to know
Baseline data
Collect data: baselines/ patterns
Analyze
Determine influential factors
List of most influential factors

D

APPENDIX

D

PREFACE

This appendix contains the goals and ground rules that were developed by the Workgroup. Goals were developed at the beginning of each meeting, but those of the first meeting (those displayed here) reflected the members' goals for the entire Workgroup process. The ground rules were also developed at the first meeting and consensus was gained for them by the entire Workgroup. The ground rules were reviewed at the beginning of every meeting and were often referred to when making decisions or struggling with difficult issues.

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GOALS

- Improve Communications

  OGWDW →→→ REGIONS →→→ STATES →→→ Systems

- Change how we do business (Long-Term)

- Actually resolve issues or identify who should resolve issues, in what way, and report back to this group. (Initiate process for resolving longer term issues.)

- Provide a "decision process" to facilitate quick fixes of yet-to-be-identified Phase V issues.

- Also, identify what kinds of decisions get made where?

- What are the real problems with the Phase II/V Rules?

- Be responsive to the needs of the consumer of drinking water.

- Categorize by "fixes" which are:

  1) Technical fixes to regulations
  2) Guidance needs
     (Who has authority: HQ →→ Regions →→ State)
  3) Substantive regulation changes
  4) Statutory changes
  5) Other

  } Identify and go as far as we can!

  *(To the above 5, assign **High, Medium, Low priority.**)*

- Need to identify those things moving us to the edge of the precipice.

GROUND RULES

- Be specific.
- Decision process accommodates conflict resolution.
- Keep commitments or let the group know when you can't.
- Process allows for creativity before focusing on recommendations.
- Participate -- "Speak your mind".
- Group confers amnesty on all members but expects confidentiality of comments when outside the group. All comments "Come from the Group."
- Anticipate needs of all "stakeholders" (First, identify stakeholders.).
- Share "why" when representing constituents (agents).
- OK to identify issues beyond the scope of this meeting.
- No personal attacks. ☹
- Five-minute maximum on being discouraged.
- Decisions by thumb vote.

  1. ↑ : yes ⟷ : ok ↓ : no
  2. "Why" technique if 1 or 2 "↓"
  3. Repeat thumb vote
  4. Majority vote/minority opinion.

E

APPENDIX E

Phase I/II/V Implementation Workgroup

Resolution of Implementation Issues Raised by Constituents

March, 1993

PREFACE

Prior to the first meeting of the Implementation Workgroup, Workgroup members were asked to poll their constituents regarding implementation issues of concern. Approximately 180 issues relating to the Phase I, II, or V regulations were submitted. As expected, some of the same issues were submitted by different constituents. The issues were maintained separately, however, in order to allow tracking of each constituent's concerns. The following table displays (a) each issue that was submitted, (b) the state, EPA Region, or organization that submitted the issue, (c) how the issue was evaluated by the Workgroup, and (d) how the Workgroup addressed the issue.

Before the Workgroup's first meeting, the issues had been categorized into nine different subject areas (I-IX). At the first meeting, additional issues that had been submitted late to the Workgroup members were added to these tables. These issues were simply grouped by each submitting organization (X-XXIV).

The last page of this document contains a count of issues submitted that did not pertain to the Phase I, II, or V regulations. The Workgroup considered these issues outside of its scope and charge. The issues are included as Appendix J of this document.

I. ORGANIC MCL/MONITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
I.1	§141.24(f)(7) states, "Each community and non-transient water system which does not ..." Should read, "Each community and non-transient **non-community** water system..."	Safe Drinking Water Hotline	*Vtd 15 HIGH Priority; TECHNICAL FIX*	In tech. amendment pkg
I.2	56 FR 3586, 01/30/91, §141.24(h)(8) states, "After a **maximum** of four quarterly samples show the system is in compliance..." Should read, "After a **minimum** of four quarterly samples..."	Safe Drinking Water Hotline	Corrected in 56 FR 30279, 07/01/91.	No action required
I.3	§141.24(f)(11) states, "If a contaminant listed in §141.61(a)(2) through (18) is detected at a level **exceeding 0.005 mg/l** in any sample..." This differs from §141.24(f)(7), which says, "For the purposes of this section, detection is defined as **> = 0.0005 mg/l.**"	Safe Drinking Water Hotline	*Vtd 15 HIGH Priority; TECHNICAL FIX* Corrected in 56 FR 30277, 7/1/91	No action required
I.4	Local conditions relating to groundwater (seasonal variation, or lack of it) and surface water (storm events and low flow events) may make the current monitoring requirements unnecessarily excessive. States should be given the option of adjusting monitoring requirements to reflect local conditions.	New Jersey	*Vtd 13 HIGH Priority; REGULATORY LONG-TERM*	See Flexibility issue 3 in monitoring subgroup issues
I.5	Phase V Federal Register (07/17/92) preamble states the effective date of MCLG and MCL for endrin is 08/17/92. However, the effective date listed in §141.60 of that Federal Register is 01/17/94.	Safe Drinking Water Hotline	*Vtd 15 HIGH Priority; TECHNICAL FIX*	In tech amendment pkg
I.6	The mandatory health effects language for di(2-ethylhexyl)phthalate found in §141.32(e)(62) states, "EPA has set the drinking water standard for di(2-ethylhexyl)phthalate at **0.004** parts per million...". The MCL for this contaminant listed in §141.61(c) is **0.006** parts per million.	Safe Drinking Water Hotline	*Vtd 14 HIGH Priority; TECHNICAL FIX*	In tech amendment pkg

I. ORGANIC MCL/MONITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
I.7	The issue of vulnerability for VOCs is too subjective to continue a heavy financial burden on small systems, which already took four samples in 1991. Drop the requirement for annual sampling for VOCs at small (less than 3,300 persons) vulnerable systems. Should be one sample every three years.	New York	*Vtd 13 HIGH Priority, 1 MEDIUM Priority; TECHNICAL FIX*	See efficiency issue 3 of monitoring subgroup issues
I.8	SOC sampling requirements are too stringent. The National Pesticide Survey shows it highly unlikely to find any of the SOCs. Also, the MDLs are several orders below the MCL, making it unlikely that one-shot monitoring would miss any contamination of health significance. The baseline initial SOC sampling requirement for small systems (less than 3,300 persons) should be only one sample. States should be allowed flexibility to use vulnerability to increase to four samples, completely waive, or specify a time of year to sample.	New York	*Vtd 13 HIGH Priority, 1 MEDIUM Priority; TECHNICAL FIX*	See flexibility issue 4 of monitoring subroup issues
I.9	Concern about distribution sampling (for PAHs, VOCs) and application of MCLs. Distribution sampling should be left to State discretion, but states should have the authority to require monitoring and apply MCLs in the distribution system.	New York	*Much discussion--Need to clarify issue w/NY. 1) Do they mean it as written? 2) Add Phrase "Instead of entry point monitoring.." Vtd 2 HIGH Priority, 7 Med. Priority, 4 LOW Priority; REGULATORY LONG-TERM (per question #2); Vtd 3 MEDIUM Priority, 6 LOW Priority; GUIDANCE (per question #1)*	See option 3 in flexibility issue 2 of monitoring subgroup issues Guidance/ clarification required

I. ORGANIC MCL/M... ...TORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
I.10	Where initial Phase I VOC sampling showed a vast majority of non-detects, additional sampling has not been substantiated to warrant the high costs associated with the Phase II regulations. Previous organic sampling results should serve as a baseline for the VOC/unregulated SOC and should be taken into account to limit the scope of the Phase II montoring.	Virgin Islands	*Vtd 12 HIGH Priority, 1 MEDIUM Priority; REGULATORY LONG-TERM*	See grandfathering issue in monitoring subgroup issues
I.11	The financial hardships placed upon small water systems for organic monitoring are very real. States and EPA should develop cooperative agreements where states collect and ship samples and EPA laboratories conduct analyses.	Virgin Islands	*Vtd 15 HIGH Priority; OTHER*	See efficiency issues 3 and 4 of monitoring subgroup issues
I.12	PWSs exist where system configuration results in a blending of sources with no sample taps before the first point of use. This will cause problems in source isolation if there is a positive sample.	Nevada	*Vtd 3 MEDIUM Priority, 10 LOW Priority; GUIDANCE* *Regional-5, State-6 Could be site-specific*	See Flexibility issue 2 of monitoring subgroup issues
I.13	Due to the timing of the repeat monitoring requirements of Phase I VOCs and the initial monitoring requirements of Phase II/V, some PWSs will be required to monitor excessively. The repeat monitoring requirements for Phase I must be synchronized with the initial monitoring requirements for the Phase II and V regulated VOCs.	North Dakota	*Vtd 13 HIGH Priority, 1 MEDIUM Priority; REGULATORY LONG-TERM* *Will examine whether can be a tech. fix*	See Efficiency issue 3 in monitoring subgroup issues

I. ORGANIC MCL/MONITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
I.14	Annual VOC sampling is too stringent for PWSs which have had no detects in previous monitoring rounds. For PWSs that fully monitored for the eight regulated VOCs and unregulated contaminants under the Phase I Rule with no detects, states should be permitted to waive the 1994 and 1995 annual sampling if the 1993 sampling again shows no detects.	North Dakota	*Vtd 11 HIGH Priority, 4 MEDIUM Priority; REGULATORY LONG-TERM* *Needs to be examined re: Waiver Process*	See Efficiency issue 3 in monitoring subgroup summary; monitoring proposal would give State flexibility on monitoring requirements
I.15	Four consecutive quarterly samples for SOCs during the initial compliance period is an unnecessarily excessive requirement. For the regulated pesticides and the unregulated organic contaminants, states should be permitted (during the inital monitoring period) to grant waivers based on no detects for one or two consecutive quarters.	North Dakota	*Vtd 9 HIGH Priority; REGULATORY LONG-TERM and 2 HIGH Priority; GUIDANCE* *Substantial discussion and uncertainty as to where it belongs*	See Flexibility issue 4 in monitoring subgroup summary; monitoring proposal would give State flexibility on monitoring requirements Guidance/ clarification required

I. ORGANIC MCL/MONITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
I.16	Manufacturing information necessary for implementing the treatment technique requirements for acrylamide and epichlorohydrin is generally unavailable. Achievable treatment technique requirements for these two chemicals need to be clarified.	North Dakota	*Vtd 14 HIGH Priority; REGULATORY LONG-TERM*	See Insufficient Information issue 1 of monitoring subgroup issues
I.17	§141.24(f)(14)(iii) states "In systems serving > = 3,300 persons, the State may permit compositing among different systems..." It should state, "In systems serving < 3,300 persons,..."	Region VIII	*Vtd 14 HIGH Priority; TECHNICAL FIX*	In tech amendment pkg.
I.18	1,2,4-Trichlorobenzene was on List 3 of the Phase I unregulated contaminants. Several states did not require their PWSs to analyze for List 3. Now, 1,2,4-Trichlorobenzene is one of 21 VOCs. A PWS may have grandfatherable VOC data with absolutely no detections but, because the system never tested for this one compound, it will now have to perform four consecutive quarterly analyses during the initial monitoring period. The regulations should be modified to allow a waiver for a single VOC chemical if other VOC data (and use data for that contaminant) indicate that it will not be a problem.	Region VIII	*Vtd 5 MEDIUM Priority, 5 LOW Priority; REGULATORY LONG-TERM* *Modified in Phase V -non-issue for small systems. For med. & lrg systems - try to make tech. fix*	See Grandfathering issue in monitoring subgroup issues

II. INORGANIC MCL/MONITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
II.1	§141.23(d)(3) states, "A surface water system shall return to quarterly monitoring if any one sample is **< 50 percent** of the MCL." Should say, **"> 50 percent** of the MCL."	Safe Drinking Water Hotline	*Vtd 15 HIGH Priority; TECHNICAL FIX*	In tech amendment pkg.
II.2	§141.23(b)(10) allows only the use of asbestos monitoring data collected after 01/01/90. Allow the use of asbestos monitoring data obtained prior to 1990, but consistent with Phase II regulations.	New York	*Vtd 4 HIGH Priority, 9 MEDIUM Priority; REGULATORY LONG-TERM* *Could be a tech. fix*	Unresolved
II.3	Monitoring separately for nitrite is, in many cases, unnecessary. States should be permitted to require a combined nitrate-nitrite analysis and only require individual nitrite monitoring if the combined result exceeds 0.5 milligrams per liter (as N).	North Dakota	*Vtd 7 HIGH Priority, 5 MEDIUM Priority; GUIDANCE* *Regional*	See Nitrite recommend.
II.4	In many situations, source monitoring for asbestos is unnecessary. States should be permitted to waive source monitoring for asbestos (for groundwater systems) if statewide geological information indicates the absence of asbestos-containing material at the depths at which wells are constructed.	North Dakota	*NON-ISSUE* *Allowed under current regulations*	Monitoring proposal drops Federal requirements for granting waivers
II.5	The regulations do not address asbestos requirements for consecutive systems. The responsibility of consecutive users for distribution system asbestos monitoring and corrective action should be clarified.	North Dakota	*Vtd 11 LOW Priority, GUIDANCE* *State guidance -- system-specific*	Guidance/ clarification required

II. INORGANIC MCL. .NITORING ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
II.6	Nitrite is recognized as an acute contaminant, but is not listed as such under the PN requirements. §141.32(a)(1)(iii) should be corrected to require violation of the nitrite MCL as a trigger for electronic media PN.	Region VIII	*Vtd 12 HIGH Priority, TECHNICAL FIX*	In tech amendment pkg.

III. GENERAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
III.1	The regulations are unnecessarily complicated in their writing and organization, requiring an exorbitant amount of effort to understand and implement them. Cross-reference information within the regulations, perhaps by inserting tables that would assist operators & labs in finding pertinent information.	Region II Env. Services Division	*Vtd 8 HIGH Priority, 5 MEDIUM Priority, 1 LOW Priority; REGULATORY LONG-TERM*	See Reg-reformatting recommend.
III.2	Monitoring is too costly. Congress should give states money to do baseline monitoring for all chemicals. Systems would be required to do the intensified monitoring when contaminants are detected or reach a "trigger level."	New York	*Vtd 13 HIGH Priority, 1 MEDIUM Priority; OTHER* *Statutory? Regulatory? Guidance?*	Monitoring proposal would allow States to focus monitoring on vulnerable systems
III.3	The term "transient non-community water system" is used to describe one of the kinds of systems required to conduct monitoring for nitrate and nitrite under 40 CFR §141.23(d) and (d)(4), (e) and (e)(3), and 40 CFR §141.62(b). There is no definition for this term. A definition for transient non-community water systems is needed and should be added under 40 CFR §141.2.	Safe Drinking Water Hotline	*Vtd 13 HIGH Priority; TECHNICAL FIX*	In tech amendment pkg.
III.4	Promulgating 3 separate rules (Phase I, II, and V) has resulted in inconsistencies and confusion. All three rules should be consolidated into one and all inconsistencies/conflicts clarified.	North Dakota	*IDFCUR*	See Reg-reformatting recommend

III. GENE[illegible] ISSUES				
III.5	It is totally inefficient from a program and laboratory standpoint to not consolidate all Phase V monitoring with the initial Phase II monitoring. EPA must recognize that allowing systems with less lthan 150 service connections to initiate the Phase V monitoring in the 1996-1998 versus 1993-1995 compliance period does **not** represent true flexibility or recognition of small system impacts.	North Dakota	*Vtd 7 MEDIUM Priority, 5 LOW Priority; REGULATORY LONG-TERM* *Reword: Extend start of monitoring for small systems.*	See timing issue in monitoring subgroup issues
III.6	Regulatory guidance and interpretations provided by EPA HQ sometimes appear in the Safe Drinking Water Hotline reports or miscellaneous correspondence. Widespread distribution of this information can be lacking or sporadic. A centralized source of official guidance and interpretations should be established so that **all** states and water systems can keep informed.	Region VIII	*Vtd 10 HIGH Priority, 1 MEDIUM Priority; OTHER* *Tech.Tansfer issue, Bulletin Board issue involving comm. improvement, perhaps guidance?*	See Communicat-ion recommend.

IV. ANALYTICAL METHOD ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IV.1	§141.23(a)(4)(i) requires new samples to be taken and analyzed if any inorganic is detected in the original composited sample. Does not make the same sense for inorganics (with a 100-fold range of detection limits) as it does for organics. Wording should be changed to, "If the concentration in the composite sample is greater than or equal to one-fifth of the MCL for a given metal (or one-fourth, if four samples are composited, etc.), then each of the individual samples comprising the composite must be analyzed for that metal."	Region II ESD, Regional Quality Assurance Managers	*Revised in Phase V.*	No action required
IV.2	§141.24(h)(13) states that Method 508A is the method for quantitation of PCB's. This is a "screening" method which is prone to false positives, was designed as a pass/fail test, has serious laboratory safety concerns, and simply should not be the method for quantitation. The allowed quantitative procedures should be Methods 505 and 508.	Region II Env. Services Division	*Vtd 12 HIGH Priority; TECHNICAL FIX*	Unresolved - requires reg change
IV.3	§141.30(e) lists Methods 501.1 and 501.2 as the approved methods for THM analysis. Under §141.40(g), other methods are also listed. The regulations should be revised to allow the use of Methods 502.1, 502.2, 503.1, 524.1, or 524.2 for the reporting of total trihalomethanes.	Reg II ESD, Regional Quality Assurance Managers	Baldev Bathija (OGWDW) has prepared document for publication in the Federal Register. Awaiting signature.	See Solutions-in-Progress recommend.

IV. ANALYTICAL METHOD ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IV.4	The analytical methods specified in the rules do not include state-of-the-art techniques for pesticides and inorganic contaminants. In addition to the 500 Series methodologies, states should be allowed to use the already developed methods used to conduct the National Pesticides Survey. EPA should take a strong lead in developing new techniques for future analyses (e.g., the newer multi-residue GC/MS techniques under consideration by FDA, with detection limits well below the MCLs).	New Jersey	*What do we do about new technologies arising after rule promulgated? (See IV.8)* *1) Long term reg. change; include new tech. w/o reg. change; short-term w/waivers? Vtd 14 HIGH Priority* *2) Nat'l guidance. Vtd 12 HIGH Priority, 2 MEDIUM Priority, 1 LOW Priority; IDFCUR*	See Analytical Method Approval recommend.
IV.5	40 CFR §141.40(n)(11) lists the unregulated contaminants and their corresponding EPA test method numbers. However, the test methods in Methods for the Determination of Organic Compounds in Drinking Water do not correspond to the test methods in the CFR.	Safe Drinking Water Hotline	*Vtd 15 HIGH Priority; TECHNICAL FIX*	In tech amendment package
IV.6	There is concern about why the approved dioxin method (Method 1613) was chosen over other methods, as well as the national laboratory capacity to analyze the necessary number of samples. Clarify why Method 1613 was chosen over other methods such as high resolution MS and Superfund's Method 8280. Determine laboratory capacity.	Regional Quality Assurance Managers (RQAM)	*Explained in Phase V pre-amble*	Guidance/ clarification required

IV. ANALYTICAL METHOD ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IV.7	Question as to whether inductively coupled plasma-mass spectrometry (ICP-MS) has been approved for all appropriate metals.	RQAM	*Vtd 13 HIGH Priority, 2 MEDIUM Priority; REGULATORY LONG-TERM* *Federal Register pending*	See Solutions-in-Progress recommend.
IV.8	The present SDWA alternate test procedure guidance is unrealistic to allow for approval of new or modified methods in a reasonable period of time. Develop a mechanism to respond quickly to updated analytical methods or implementation issues of promulgated rules.	Regional Quality Assurance Managers	*ATP Federal Register pending*	See Analytical Method Approval recommend.
IV.9	Current methods recommend ascorbic acid as a preservative for VOC's. However, use of it may cause the severe loss of brominated compounds. TSD should undertake/finish its study, publicize the results, and bring the issue to closure.	RQAM	*NON-ISSUE -- ALREADY ANSWERED AND BEING PUBLISHED*	No action required
IV.10	The Phase II rule states (p. 3550) that labs not wishing to use diazomethane may use the original derivatization procedure. That procedure, however, if used to measure pentachlorophenol (PCP) by Method 525 without ion trap mass spectrometry, will be unable to detect at the MCL level. This issue needs to be resolved.	RQAM	*Vtd 1 HIGH Priority, 4 LOW Priority; GUIDANCE* *NATIONAL GUIDANCE*	Guidance/ clarification required
IV.11	EPA currently has no good method for the analysis of hexavalent chromium (the more toxic chromium), although an ion chromatography method is the subject of a current ASTM/EPA method validation study. The Office of Water should re-institute hexavalent chromium as a drinking water analyte if an analytically sound method is found.	Regional Quality Assurance Managers	*Evaluation underway -- Proposed changes not. Is assigned to TSD.*	Guidance/ clarification required

IV. ANALYTICAL METHOD ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IV.12	According to the "Phase I Draft April 1991 Fact Sheet," compositing of up to 5 samples is allowed for all analyses, including volatiles. However, no procedures are given in 524.2 for compositing. Clarify which methods EPA considers adequate for compositing.	Regional Quality Assurance Managers	*Solution exists -- Source of info needs to be distributed.*	Guidance/ clarification required
IV.13	The issue of analytical quantitation levels [Method Detection Level (MDL), Reliable Quantitation Level (RQL) and Reliable Detection Level (RDL)] has been investigated by EPA, but is languishing. EPA should reassess where it is going with these concepts, make a FR proposal, review the comments, assess the feasibility of the concepts, and bring the issue to closure.	Regional Quality Assurance Managers	*Reg. change in process -- due out in fall.*	No action required
IV.14	Some of the sample preservation methods which are now used (e.g., for volatiles) are perceived to have problems and inadequacies. The current sample preservation methods need to be reevaluated as quickly as possible.	RQAM	As of 8/91, EMSL and/or TSD was evaluating preservatives. *Vtd 4 LOW Priority; OTHER. Working towards solution -- new info might modify status quo.*	Guidance/ clarification required
IV.15	The use of diazomethane for analysis of 2,4-D, 2,4,5-TP, and pentachlorophenol is of concern due to its toxicity and handling problems. An alternative method for the analysis of all the SDWA herbicides is needed to replace the method using diazomethane.	RQAM	Work was underway at EMSL in 1990 and 1991. *Work underway -- 2 potential notices*	See Solutions-in-Progress recommend.

IV. ANALYTICAL METHOD ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IV.16	Free chlorine will oxidize nitrite to nitrate. Analysis for nitrite in a chlorinated system will show no detect. A PWS that chlorinates should not be required to analyze for nitrite (or should be given a waiver). Oxidation technology should be recognized by EPA as BAT for nitrite.	Region VIII	*Vtd 14 HIGH Priority, 1 MEDIUM Priority; REGULATORY LONG-TERM* *Need "quick fix". IS a credibility problem.*	See Nitrite recommend.
IV.17	The requirement for nitrite to be analyzed within 48 hours will be very difficult for many water systems. Mercuric chloride, which is used as a preservative for many of the pesticides, will stabilize nitrite for at least a week. Mercuric chloride should be recognized as an acceptable preservative and the holding time for nitrite should be extended when it is used.	Region VIII	*Problem = P, Solution = S* *Vtd 10 HIGH Priority, 3 MEDIUM Priority*	See Nitrite recommend.

V. LABORATORY CERTIFICATION & CAPACITY ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
V.1	§141.23(k)(5) is not specific enough as it pertains to laboratories approved by EPA or the State. §141.23(k)(5) should also require that a laboratory must be shown to follow approved methods as specified in §141.23(k)(1), with adequate quality control and documentation, during periodic on-site evaluations. These on-site visits should be done yearly, or at least once every three years.	Region II Env. Services Division	*Vtd 5 HIGH Priority, 4 MEDIUM Priority; GUIDANCE*	Guidance/ clarification required
V.2	Laboratory Certification Manual is outdated. New manual should be issued ASAP. Strongly recommend that the regulations be changed to reference the laboratory certification manual explicitly, to give "official" sanction.	Region II Env. Services Division	*IN PROCESS.*	See Laboratory Certification recommend.
V.3	Concerned about Cincinnati having adequate time to send out Performance Evaluation (PE) samples so that laboratories can be at least conditionally certified for Phase II/V analyses in time for the 1993 monitoring. Start immediately sending out the PE samples or allow an adequate on-site laboratory evaluation to count as provisional certification.	Region VII	*Vtd 14 HIGH Priority; OTHER.* *How can we make certain all work comes together in time to assure availability to the regulated community. This is a long-term regulatory issue.*	Guidance/ clarification required See Laboratory Capacity recommend.
V.4	It is difficult for state or commercial labs to justify the expense of acquiring and maintaining certification for the single analyte methods, especially since waivers will limit the number of analyses required. EPA could assist the states by designating a particular laboratory (commercial or state) as the regional facility for the analysis of samples using a particular method.	New Jersey	*Vtd 1 HIGH Priority, 9 MEDIUM Priority, 1 LOW Priority; OTHER*	Guidance/ clarification required

V. LABORATORY CERTIFICATION & CAPACITY ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
V.5	The lack of laboratory competition in certain parts of the country resulted in high costs for the first round of VOC analyses and there is no indication that these high costs will not be the same for the implementation of Phase II. Consideration to this special condition and a commitment by the EPA Regional Offices to help ease the economic burden would be greatly appreciated.	Virgin Islands	*Vtd 8 MEDIUM Priority, 6 LOW Priority; OTHER*	Guidance/ clarification required
V.6	Who performs certification for asbestos, radionuclides, dioxin, and other "specialty" analyses where the expertise does not exist within a (primacy) state or a region? Clarification should be made as to the possibility of national EPA certification and third-party certification. EPA should oversee third-party certification programs and determine acceptability with a minimum set of criteria.	Regional Quality Assurance Managers (RQAM)	*Vtd 12 HIGH Priority; OTHER.* *Existing guidance needs to be revisited. See also pgs. 3 and 4.*	Guidance/ clarification required
V.7	What documentation is needed by a state to show laboratory capability for primacy?	RQAM	*Vtd 12 HIGH Priority, 3 MEDIUM Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.8	If not another state laboratory, who certifies the facility providing analysis work to the state -- EPA or the resident state?	RQAM	*Vtd 6 HIGH Priority, 7 MEDIUM Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.9	Performance Evaluation samples must be available for all regulated analytes. Provide required PE samples as soon as possible.	RQAM	*Vtd 14 HIGH Priority; OTHER.* *See V.3.*	See Laboratory Capacity recommend.

V. LABORATORY CERTIFICATION & CAPACITY ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
V.10	The certification manual does not yet address the criteria for certification for many of the "specialty" analytes, as well as the other Phase V contaminants. Revise the manual to include them and develop a process to insure that the manual is revised in the timeframe necessary to develop and implement a certification program for new analytes.	Regional Quality Assurance Managers	*RESOLVED*	See Laboratory Certification recommend.
V.11	Data will be collected before states and EPA have learned the new methods and are ready to certify laboratories for new analytes. Develop criteria to be used in accepting data that has already been collected, including data covered under the grandfathering allowance.	RQAM	*See V.3.*	Guidance/ clarification required
V.12	In light of third-party certifiers and the potential for a national capability for specialty analysis like asbestos, dioxin, and radionuclides, there is concern about the role of the regional ESD laboratories. Determine what analytical capabilities should be maintained by the Regional ESD laboratories for the Drinking Water Program.	Regional Quality Assurance Managers	*Vtd 7 HIGH Priority, 6 MEDIUM Priority, 1 LOW Priority; OTHER.* *Related -- <u>but</u> expands to ESD.*	Guidance/ clarification required
V.13	Certification for the regulated VOCs requires the initial demonstration of the capability to reach an MDL of 0.5 ppb for each VOC. Decisions should be made (a) whether or not to require periodic re-demonstration of 0.5 ppb MDLs, and (b) whether it is really necessary to set MDLs at extremely low levels when MCLs are often orders of magnitude higher.	Regional Quality Assurance Managers	*Solution A = GUIDANCE* *Solution B = REG.* *LONG-TERM* *Vtd 7 HIGH Priority, 5 MEDIUM Priority; REG LONG-TERM. and 5 HIGH Priority, 6 MEDIUM Priority, 1 LOW Priority, GUIDANCE.*	See MDL recommend.

V. LABORATORY CERTIFICATION & CAPACITY ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
V.14	VOC certification is dependent upon THM status. The Phase II rule still requires certification for THMs as a prerequisite for VOC certification. Clarify whether or not a laboratory automatically loses its VOC certification if it loses its THM certification.	Regional Quality Assurance Managers	*NO LONGER AN ISSUE. CORRECTED IN RULE.*	Guidance/ clarification required
V.15	The Phase II rule states that certification is based on PE study performance. Clarify if this means that certification is no longer based, inpart, upon on-site evaluations, and if the rule undercuts the present lab certification program and the certification manual.	RQAM	*Vtd 11 MEDIUM Priority, 2 LOW Priority; GUIDANCE.*	Guidance/ clarification required
V.16	The certification manual is not formalized or promulgated. Clarify when it is expected the manual will be promulgated as a formal rule.	RQAM	*Vtd 3 MEDIUM Priority, 10 LOW Priority; OTHER.*	See Laboratory Certification recommend.
V.17	The Performance Evaluation study instructions do not include information necessary for the safe disposal of the PE ampules. This information should be provided, including the composition of the matrix liquid (solvent) and a maximum level for each analyte.	RQAM	*Vtd 3 HIGH Priority, 8 MEDIUM Priority, 4 LOW Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.18	Analysis for the more exotic chemicals will be performed by a limited number of laboratories nationwide. Having a national listing of all certified labs that meets the needs of State programs has not yet been developed. The ASDWA database is "primitive" and of limited use. A well thought out database system (designed by state program managers) that is accurate, up-to-date, complete and easily accessible (electronic bulletin board?) would be very beneficial to all states.	Region VIII	*Vtd 15 HIGH Priority; OTHER.* *Tech. Transfer*	Guidance/ clarification required

VI. MONITORING WAIVER ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
VI.1	It is a large resource burden for each state to develop technical information and support documentation for each of the contaminants (e.g., fate and transport mechanisms, likely sources of contribution, etc.). EPA should develop this information.	New Jersey	*Vtd 14 HIGH Priority; OTHER.* *Tech. Transfer*	See Insufficient Information issue 2 of monitoring subgroup issues
VI.2	Many systems, especially privately owned PWSs, do not have information about their system's construction (well logs, distribution materials, etc). This makes it difficult to obtain useful information for vulnerability assessments. Statement	Nevada	*Truth as written. Accommodate in discussion of waivers at VI.3.*	Monitoring proposal would allow State to specify parameters for vulnerability assesments
VI.3	The current requirements for granting waivers are overly burdensome and resource intensive. A more simple, less stringent, and achievable means of granting waivers must be developed which is within the resource capabilities of state programs and PWSs.	North Dakota	*Vtd 14 HIGH Priority, 1 MEDIUM Priority; GUIDANCE.* *Tech. Transfer & State info to HQ for dissemination*	Monitoring proposal would drop Federal criteria for granting waivers
VI.4	Manufacturing practices resulting in the production of dioxin are not widespread nationwide. States should be permitted to issue a statewide waiver for dioxin if research shows the lack of recognized sources within the state.	North Dakota	*HQ guidance is now in concurrence routing.*	Monitoring proposal would drop Federal requirements for granting waivers

VII. DATA MANAGEMENT ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
VII.1	Computer software programs already developed by EPA for compliance monitoring and tracking vulnerability assessments do not accommodate the Phase II/V rules. Update those programs to include the Phase II/V rules.	New Jersey	*Vtd 13 HIGH Priority, 1 MEDIUM Priority;* OTHER. Tech. transfer through a central point. Check with Larry Weiner.	See Communications recommend.
VII.2	The diversity and number of contaminants, as well as the variability in sampling and waiver requirements, will be a challenge in bookkeeping. The development of a computer program addressing the issues involved in the regulations would be very valuable to state programs.	Nevada	*Refer to VII.1.*	See Communications recommend.

VIII. UNREGULATED CONTAMINANT ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
VIII.1	The cost of unregulated monitoring is overly burdensome. Drop the concept of unregulated monitoring except where a particular method readily reports analytes beyond regulated compounds (i.e., if there are six Phase II compounds reported for a particular method, the remaining compounds should be required as "unregulated")	New York	*Vtd 8 HIGH Priority, 2 MEDIUM Priority, 2 LOW Priority; STATUTORY. and Vtd 12 HIGH Priority; REGULATORY LONG-TERM.*	See Unregulated Contaminants recommend.
VIII.2	The requirement for systems serving fewer than 150 service connections to send a letter to the state saying they are available to be sampled (for unregulateds) is a "prime example of bureaucracy gone wild." Drop that requirement. If a letter is necessary, it should be sent to Congress reminding them to appropriate the $25 million in the '86 Amendments intended for states to do this monitoring.	New York	*Vtd 3 HIGH Priority, 8 MEDIUM Priority, 2 low Priority; REGULATORY LONG-TERM.* *May be tech. amendment.*	See Unregulated Contaminants recommend.
VIII.3	The unregulated contaminant monitoring requirements are unclear. The final unregulated monitoring requirements need to be clarified.	North Dakota	*Contradictions in Regs. Would be Tech. Fix. otherwise, Guidance.* *Vtd 13 HIGH Priority; TECHNICAL FIX and Vtd 6 HIGH Priority, 6 MEDIUM Priority; GUIDANCE.*	In tech amendment pkg.

IX. GUIDANCE/FACT SHEET ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
IX.1	Page 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) states "VOC monitoring requirements were revised on **June 30, 1991**." The correct date should be **July 1**, 1991, the date of promulgation for the Phase IIb Rule (56 FR 30266).	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required
IX.2	Page 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) states "Monitoring for Phase I VOC's will remain in effect until **December 31, 1993**, when Phase II becomes effective." According to the Phase IIb Rule (56 FR 30274), Phase II monitoring requirements become effective **July 30, 1992,** 40 CFR §141.6(g).	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required
IX.3	Table 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) incorrectly states that systems serving 3,300 to 10,000 people and systems serving <3,300 people must begin monitoring by **January 1, 1988**. According to 40 CFR §141.24(g)(4), Table 1 should state that systems serving 3,300-10,000 people must begin monitoring by **January 1, 1989,** and systems serving <3,300 people must begin monitoring by **January 1, 1991.**	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required
IX.4	EPA's Unreasonable Risk to Health (URTH) guidance has yet to be finalized. As monitoring is initiated in 1993, it will be necessary for states and Regions to use the URTH values derived from the guidance for V&E's and SNC determinations. The URTH guidance should be finalized and distributed by December 1, 1992, at the latest.	Region VIII	*Vtd 12 HIGH Priority, 1 LOW Priority; GUIDANCE* Guidance is still awaiting signature	Unresolved

X. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
X.1	In the Phase V Rule Fact Sheet, May '92, table - Future Regs (pg. 5): - **Five** radionuclide contaminants are cited in the Number of Contaminants column, but there are **6** proposed contaminant/ contaminant groups listed in the Radionculides Rule. - The revised arsenic regulation is added into the cumulative count, however, arsenic has already been counted as one of the contaminants under the NIPDWRs. - There are 2 addition errors in the Cumulative Number of Contaminants column.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX Geo Resource letter 8/28/92	Phase V Fact Sheet to be revised
X.2	Under the definition for "initial compliance period" in §141.2 of the Final Phase V Rule, the "§" is missing from the section references.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX Geo Resource letter 8/28/92	In tech amendment pkg.
X.3	In the Final Phase V Rule, the sentence under §141.23(i)(1) states, "If any one sample would cause the annual average to be exceeded, then the system would be **our** of compliance immediately." It should be corrected to read, "If any one sample would cause the annual average to be exceeded, then the system would be **out** of compliance immediately."	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX Geo Resource letter 8/28/92	In tech amendment pkg.
X.4.	In the Final Phase V Rule, Table 23 on pg. 31832 of the preamble contains a category entitled "Benefits ($ Millions)". The "($ Millions)" should be deleted since the table expresses benefits in terms of the number of people, not dollars.	Safe Drinking Water Hotline		In technical amendment pkg.

X. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
X.5.	In the Final Phase V Rule, §141.32(e)(62) the mandatory health effects language specified for di(2-ethylhexyl)phthalate, states "EPA has set the drinking water standard at **0.004** mg/l". The MCL listed in §141.61(c) is **0.006** mg/l.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX Geo Resource letter 8/28/92	In tech amendment pkg.
X.6.	In the Final Phase V Rule, §1411.62(c) identifies the best available technologies (BATs) for inorganic contaminants. Item 11 in the key to the table lists **ultraviolent** as a possible BAT. Item 11 should read **ultraviolet**.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX Geo Resource letter 8/28/92	In tech amendment pkg.
X.7.	In the Final Phase V Rule, §142.62(a) lists the BATs for organic chemicals. In the table heading: a) Granular Activated Carbon is abbreviated **GAO**. This should be **GAC**. b) Packed Tower Aeration is abbreviated **PAT**. This should be **PTA**.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	In tech amendment pkg.
X.8	In §141.40(e) of the Final Phase V Rule, chlorobenzene still is included in the list of unregulated contaminants even though it was regulated under the Phase II Rule as monochlorobenzene (a synonym of chlorobenzene).	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	In technical amendment pkg.
X.9	In the Phase II Rule, 40 CFR §141.40(e)(11) lists dibromomethane as a contaminant for unregulated conaminant moitoring. However, in the Final Phase V Rule, dibromomethane has been removed from the unregulated conaminants list even though it was not regulated under the Phase II or V Rules.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	In technical amendment pkg.

X. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
X.10	In the preamble (pgs 31824-31825) of the Final Phase V Rule, it states that only systems that are vulnerable to cyanide contamination must monitor for cyanide. However, this is not stated in §141.23 of the codified language.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	Unresolved
X.11	The Final Phase V Rule amended §141.24(f)(4), monitoring requirements for VOCs, to take into account the revised definition of initial compliance period. However, the analogous section for SOCs, §141.24(h)(4), was not changed.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	In technical amendment pkg.
X.12	The sample compositing requirements to reduce the total number of samples taken for inorganic contaminants, found in §141.23(a)(4) were amended under the Final Phase V Rule. The amendments included changes on when a system may composite a sample for a contaminant based on the detection limit to be less than 1/5 of the MCL. This change also was made to the analogous sections for VOCs and SOCs, §141.24(h)(14) and §141.24(h)(10) respectively. The changes to the compositing requirements for inorganic chemicals also included parameters for when a system must take followup samples at each sample site for the contaminants found in the composite sample (§141.23(a) (4)(i)). These changes were **not** included in the analogous sections for VOC/SOCs.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	In technical amendment pkg.

XI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XI.1	What is logic behind allowing groundwater systems to reduce sampling to annually after 4 consecutive quarterly sampling are "reliably & consistently below MCL." However, surface water seems to be held to "<50% of MCL." How come not same? In certain regions, nitrate in groundwater may be more variable than nitrate in surface water.	Region X	Vtd 3 HIGH Priority, 5 MEDIUM Priority, 3 LOW Priority; REGULATORY LONG-TERM	See inconsistency issue 1 of monitoring subgroup issue
XI.2	How come there is no repeat or threshold requirements (>50%) for transient (TWS) systems? Seems to be inconsistent for acute contaminant.	Region X	Vtd 3 MEDIUM Priority, 10 LOW Priority; OTHER Review for merit (unintentional inconsistency) & clarify	See inconsistency issue 1 of monitoring subgroup issue
XI.3	All Region 10 states want to see standard monitoring framework guidance from EPA. Much too complicated. Not sure when added to base/initial monitoring.	Region X	Evaluated above	Monitoring proposal would simplify monitoring requirements
XI.4	At what contaminant level is nitrate a concern for adults? There are many TWS systems that serve no-risk populations currently identified by rule (i.e., infants, pregnant women, etc.)	Region X	Vtd 1 MEDIUM Priority, 11 LOW Priority; TECHNICAL FIX	MCL was intended to apply to all systems and all populations; no change needed.
XI.5	Nitrate sampling does not appear to be able to be reduced below annually. How come systems with no detections should be able to be further reduced.	Region X	Evaluated above	See Flexibility issue 7 of monitoring subgroup issue

XI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XI.6	What is current MCL for arsenic? Don't see it mentioned anywhere under inorganics. How is it to be handled until new arsenic standard?	Region X	Evaluated above	In 40 CFR
XI.7	Requirements for quarterly monitoring when use is highly seasonal? (Secondary, supplemental, emergency sources) What about water use from tank (contained reservoir) fill only once a year? (NO follow up exposure.)	Region X	Evaluated above	See Flexibility issue 5 in monitoring subgroup issues
XI.8	Grandfathering - monitoring/samples under extension agreements? How does standard monitoring framework affect monitoring in states with waivers?	Region X	OGWDW Guidance now underway from NY SWTR court decision	Guidance/ clarification required
XI.9	What does compositing do for substances where increased monitoring is triggered by a "detect?" Does not compositing make the "detect" meaningless?	Region X	Vtd 6 HIGH Priority, 3 MEDIUM Priority, 4 LOW Priority; REGULATORY LONG-TERM	See Inconsistency issue 2 of monitoring subgroup issues
XI.10	Consider 2 types of waivers for Phase II & V Contaminants: I. Exempted waiver - Phase II or V requirements not relevant to this system Asbestos - no asbestos (AC) pipe - not in natural asbestos area. Dioxin - systems and non-exposed surface water systems (no upgradient pulp mills) Acryl & epi - systems without treatment Blanket use waivers (state-wide). These would be exempted once with only minimal review every few yrs. Not annual waivers. II. Vulnerability waivers (use/susceptibility) These systems are subject to rule requirements but may be considered temporarily not at risk due to use/susceptibility factors. These waivers need to be renewed regularly.	Region X	Evaluated above	Monitoring proposal would drop Federal criteria for granting waivers

XI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XI.11	Lab issues. Certification for private labs when Regions do not have or plan to develop capacity themselves. Asbestos Dioxin What are existing options beyond traditional certification? What is timeline to develop new alternatives? Who and how is certification evaluated? How can a Region certify a lab if it does not have analysis capability itself? What does this do for oversights and QA/QC?	Region X	Evaluated above, see V.3	See Laboratory Certification recommend.
XI.12	Alternative Methods. Asbestos - What about use of Phase Contract Microscopy as a screen for asbestos? With PCM use Fiber Count but not worry about Fiber type. If total count > than 7,000,000 - no asbestos problem. PCM is cheaper and much more commonly available. Would this not be similar to PCB screen? Pesticides - Amino Assay Analysis - qualitative (detect/non-detect) analysis for families of pesticides. If acceptable detection thresholds are demonstrated - can AAA be used as 1st round monitoring - when tied to state vulnerability process. Systems detecting occurrence would be required to use specific analytical methods? What about combinations for meeting monitoring requirements. AAA much cheaper.	Region X	Evaluated above	Guidance/ clarification required

XI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XI.13	Monitoring. Sampling - Composite samples vs. quantification limits. Are there regulated contaminants for which 1/5 the MCL is below the MDL? (IDEA 5 samples composited - action level 1/5 MCL) What about 3 samples - or are the rules for compositing to be chemical specific?	Region X	Evaluated above	See Inconsistency issue 2 of monitoring subgroup issues

XII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XII.1	Under 40 CFR §141.24(f)(4) - monitoring and analytical requirements for volatile organic chemicals, each community and non-transient, non-community water system must take four consecutive quarterly samples during the initial compliance period. However, if the system completed the initial sampling by 12/31/92 and did not detect any VOCs, then monitoring may be reduced by the State to annual samples during the initial compliance period (§141.24(f)(5)). Systems may also obtain from the State a waiver from this reduced monitoring frequency requirement ((§141.24(f)(7)). If the system did **not** complete the initial sampling by 12/31/92 and did not detect any VOCs during the initial compliance period, there is no mechanism in the regulations that allows a system to reduce the monitoring frequency to less than quarterly. The only way a system that did not complete the initial monitoring by 12/31/92 can reduce their monitoring frequency is to detect a VOC and then reduce the frequency to annual monitoring according to §141.24(f)(11)(ii). Was it EPA's intention to allow systems that did **not** complete initial sampling by 12/31/92 and did not detect any VOCs during the initial compliance period to reduce the monitoring frequency to annually?	Safe Drinking Water Hotline	Believe is addressed.	See Grand-fathering issue in monitoring subgroup issues
XII.2.	Under 40 CFR §141.24(f)(10), systems using surface water may apply to the State for a waiver of the reduced monitoring requirements in §141.24(f)(5). This section however, does not specify the criteria for vulnerability under which waivers may be granted. Section 141.24(f)(8) in the Phase II Rule specifies only the criteria for granting waivers, not for determining vulnerability. However, §141.24(g)(8) in the Phase I Rule does include criteria for determining vulnerability. Should States use the new criteria in §141.24(f)(8) specified under the Phase II Rule or the older criteria in §141.24(g)(8)(iv) under the Phase I Rule?	Safe Drinking Water Hotline	Vtd 3 HIGH Priority, 4 MEDIUM Priority; GUIDANCE	Monitoring proposal would drop Federal requirements for granting waivers

XIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evalutation**	**Workgroup Disposition**
XIII.1	What is the correct method for 3-Hydroxycarbofuran? FR Volume 57, No. 138, July 17, 1992, gives it as 581.1. Earlier FRs gave 531.1. I am assuming this is only a typographical error.	Maine	Vtd 15 HIGH Priority; TECHNICAL FIX	In tech amendment pkg.
XIII.2	What is the correct method for Dioxin? There appears to be an entirely new method in the July 17, 1992 FR. IF this is a completely new method it doesn't give much notice to laboratories to adopt it.	Maine	Evaluated above, see IV.6	No action required
XIII.3	By the new July 17, 1992 FR systems will all need to test for Cyanide rather than some systems being eligible for waivers based on vulnerability assessments. Our laboratory cannot now do that many tests and until July didn't know they would need to.	Maine	Vtd 10 HIGH Priority, 1 MEDIUM Priority; REGULATORY LONG-TERM	See Laboratory Capacity recommend.
XIII.4	All the unregulated contaminants. They have been on the list for some time. Are they a problem? Perhaps they should be dropped, if they have not been shown to be a problem.	Maine	Evaluated above	All contaminants are being reconsidered as part of Phase VI.B rule

XIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evalutation**	**Workgroup Disposition**
XIII.5	We could use much more guidance for waivers. Where is it appropriate to look for some of these contaminants, particularly the industrial contaminants. For example, i know that here in Maine we need to look around paper mills for dioxin. Are there other industries that also need to be considered? We need specifics. For all the contaminants, we need to seek guidance from numerous agencies, but what if info is missed, or we neglect the one individual w/in an agency who has specific info appropriate to our decision. These other agencies all have many commitments, and their response may not necessarily be all that is required. As a regulator, I often need to know more just to be able to ask the correct questions. It would be more useful if sites at risk were identified in or with the rules.	Maine	Evaluated above	Monitoring proposal would drop Federal requirements for granting waivers; fact sheets on each contaminant would provide information on industrial sources

XIV. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIV.1	PHASE II/IIB CORRECTIONS. Detection Limits - Some detection limits are several orders of magnitude lower than the MCL. Are there instances where limits could be rased? Could this be fixed quickly since EPA would be going to a less stringent requirement?	Region VII	SAME AS V.13 Vtd 9 HIGH Priority, 1 MEDIUM Priority, 1 LOW Priority; REGULATORY LONG-TERM	Requires proposed and final rule making
XIV.2	Repeat Monitoring Frequencies for VOCs - Is the repeat monitoring frequency for VOCs annual or triennial? Is there one? The repeat VOC monitoring frequencies for old and new PWSs differ. Old PWSs - A currently existing PWS that has completed Phase I monitoring for VOCs and Phase I unregulated contaminants and has not had a detect can monitor annually in the initial compliance period (§141.24(f)(5)). After 3 years of annual monitoring, the PWS can go to one sample every three years (§141.24(f)(6)). If eligible for a waiver, then PWS can reduce monitoring to once every 6 years (§141.24(f)(7)). New PWSs - A new PWS must monitor quarterly int he initial compliance period (§141.24(f)(4)). It seems that these PWSs cannot reduce monitoring to annually under or triennially under §141.24()(5) and (6), so the remaining options are to continue monitoring quarterly or apply for a waiver.	Region VII	YES: HIGH Priority, TECHNICAL FIX	In tech amendment pkg.
XIV.3	Non-detects in Phase II Compliance Determinations - Where averaging is used to determine compliance with an MCL, the rule should specify that a result of less than the detection limit should be a "zero" in the compliance calculation. (§141.42(II)(i)	Region VII	YES: HIGH Priority TECHNICAL FIX	Guidance to be issued for now, phase VI B will clarify requirements in the regulations

XIV. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIV.4	PHASE II/IIB/V ISSUES AND CONCERNS Laboratory Certification - A complete description of the laboratory certification program for drinking water as it affects Phases II/IIB/V is needed. Is the EPA program for certification of state laboratories for all Phase II/IIB/V contaminants starting January 1, 1993 in place? What are the conditional and final certification requirements for Phase II/IIB/V? If EPA performance samples are not available, can state laboratories be provisionally certified solely on the basis of site visit?	Region VII	Evaluated above, see V.3	See Laboratoy Certification recommend.
XIV.5	Could the ASDWA national registry for certified laboratories be used as a repository for certification information under Phases II/IIB/V/VIB? States could use this information to make decisions regarding reciprocal certification and guide PWSs to laboratories that perform specialized analysis (e.g., dioxin, asbestos)?	Region VII	Evaluated above, see V.18	Guidance/ clarification required
XIV.6	MONITORING REQUIREMENTS. Monitoring requirements are too complex. There is little flexibility for states to reduce outside of waivers.	Region VII	Evaluated above	Monitoring proposals would simplify monitoring requirements
XIV.7	Requirements for groundwater systems are too stringent. One analysis should be required for all the regulated contaminants. IF the results are negative, groundwater systems should only have to screen for contaminants every 3-6 years.	Region VII	*Voted 9 HIGH Priority, 3 MEDIUM Priority; REGULATORY LONG-TERM*	See Flexibility issue 3 of monitoring subgroup issues

XIV. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIV.8	Waivers - The rules do not provide enough time for states to determine vulnerability and susceptibility.	Region VII	Evaluated above	Monitoring proposal would drop Federal requirements for granting waivers
XIV.9	Congressional Action - What is the status of efforts (e.g., Domenici Bill) to suspend or roll back the drinking water regulations? Should there be a delay in Phase II/IIB/V implementation (laboratories may need to obtain additional space, equipment and staff -- should they invest the resources now?)?	Region VII	Evaluated above	See Elder memo on interpretation of appropriate bill
XIV.10	Extension Agreements - How are the extension agreements for Phase V being handled in cases where Phase II Agreements have already been signed?	Region VII	OGWDW GUIDANCE Voted 1 MEDIUM Priority, 13 LOW Priority; REGULATORY LONG-TERM	Guidance/ clarification required
XIV.11	Monitoring Plans - Have any states submitted monitoring plans which can be shared with other states and EPA regions?	Region VII	Evaluated above	See Technical Transfer recommend.
XIV.12	Effective Dates - There are too many effective dates (and embedded dates) within a rule. This is difficult for Regions and states to track. A list of milestones should be provided with a final rule, and it should describe the requirement rather than give a citation.	Region VII	Voted 4 HIGH Priority, 9 MEDIUM Priority; OTHER Simplicity is main issue. This is a policy call; will be part of reg. S.G.	Reformatting subgroup proposal

XV. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**SOURCE**	**Workgroup Evaluation**	**Workgroup Disposition**
XV.1	Organization/Codification of Regs Needs Change. - Specifics e.g., MDLs for IOC under composite - General - better modularity, i.e., MCLs, MDLs in one place, consolidate definitions of sampling points	Unknown	Evaluated above	See reformatting subgroup proposal
XV.2	Language Accuracy - i.e., no such thing as "waiver by rule" or "baseline monitoring."	Unknown	Evaluated above	Guidance/ clarification required
XV.3	Simplification of monitoring requirements - through shift of presumptions about occurrence to loss. Then worse case i.e., revised initial monitoring --> reduced + loss structured consolidate organic (SOCs + VOCs).	Unknown	Evaluated above	Monitoring proposal would streamline Federal requirements

XVI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVI.1	To reduce the number of inconsistencies that arise between the drinking water regulations ad the laboratory certification program, consideration should be given toward having certification criteria incorporated directly into the regulations.	Region V	Evaluated above	Workgroup recommends not to incorporate guidance -- see lab cert issues
XVI.2	Most State laboratories will be unable to meet certification criteria for several parameters regulated under Phases II and V (such as asbestos and dioxin). Perhaps the only solution to this problem will be to establish national "environmental centers of excellence" that would have the certification and capability to accommodate these analyses.	Region V	Evaluated above, see V.3, V.18	See Laboratory Capacity recommendation
XVI.3	The Phase II, IIa, IIb and V regulations are having a devastating effect on PWSs because of the increased monitoring costs that the systems, esp. the small systems, must meet each time a new regulation is promulgated. The pace of regulation promulgation has not diminished in recent years. perhaps in her role as a national workgroup member, Lou Allyn can effectively voice the concerns of the States and Region 5 regarding this matter. Although waivers are allowed at State discretion, initial monitoring requirements should be reevaluated with the intent to reduce total numbers.	Region V	Evaluated above	Monitoring proposal would allow States to focus monitoring on vulnerable systems and impose own waiver criteria
XVI.4.	The 1986 Amendments to the SDWA required the USEPA to establish drinking water regulations for 83 contaminants by 1989 and then regulations for 25 additional contaminants every 3 years thereafter. The States are having trouble meeting the deadlines for he 83 contaminants, as evidenced by the 2-yr. extension agreements, let alone trying to cope with 25 more contaminant regulations every 3 years. The requirement to establish more regulations should be set aside for the time being until the States and their public water systems can get up to speed dealing with those regulations which are already promulgated.	Region V	Vtd 11 HIGH Priority; STATUTORY Various pieces of legislation attemping this.	No action required

XVI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVI.5.	The SDWA of 1986 is admittedly difficult to implement. In its basic form, the USEPA is tasked with developing new maximum contaminant levels and monitoring requirements. The most flexible component of this act lies in the monitoring requirements. The waiver process takes advantage of this flexibility to reduce the analytical costs associated with monitoring framework and initially the monitoring requirements that will reflect a better balance between monitoring cost and the value of public health protection that is provided. Without the resources to support the existing requirements, those resources that are available will become mired in enforcement activities against public water supplies that lack qualified operators, technical expertise or financial capability.	Region V	Evaluated above	Monitoring proposal would simplify monitoring requirements and allow States to focus monitoring in vulnerable areas

XVII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVII.1	More guidance needs to be included for using screening methods for specific groups of analysts such as analyzing for pesticides with longest persistence, most widely used, etc.	Ohio	Evaluated above	See insufficient information issue 2 of monitoring subgroup issues
XVII.2	Keeping monitoring requirements for groups of contaminants to a minimum to streamline administration.	Ohio	Evaluated above	Monitoring proposal would simplify requirements
XVII.3	More guidance or specifics on what data can be grandfathered for upcoming regulations.	Ohio	Evaluated above	See Grandfathering issue of monitoring subgroup issues
XVII.4	Elimination of waivers that are not as cost effective or administratively effective than performing the required analyses.	Ohio	Evaluated above	Monitoring proposal drops Federal requirements for granting waivers
XVII.5	Ensuring that recommended treatment technologies may be effectively utilized without imposing unreasonable liability to public water systems, concerning maintenance of point-of-use devices	Ohio	Vtd 7 MEDIUM Priority, 4 LOW Priority; OTHER	No action taken

XVII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVII.6	Paragraph 141.23(1)(3) is generally self-consistent only if the parenthetical phrase is taken literally, meaning that the sample water is representative of all the sources being used at the time of sampling and pays no heed to whatever additional sources are available (and used at some times) but are not being used at the time of sampling. This paragraph is copied on the attached page with three similar paragraphs from sections 141.24 and 141.40. Unfortunately, the parenthetical phrase in sections 141.24 and 141.40 is rearranged, apparently to mean that sampling must be done only when water representative of all the sources ever used to supply water to the sampling point is being used simultaneously. This sampling requirement contradicts the "normal operating conditions" requirement for many Ohio Water systems with more than one source of water. PWSs with multiple wells usually have well capacity which substantially exceeds the plant capacity, allowing repair of pumps and wells without inhibiting water treatment. Surface water systems frequently (if not usually) have backup wells and/or reservoirs which may be or may not be used under "normal operating conditions" but definitely qualify as sources which are used at some times; simultaneous use of all such water sources would frequently be quite abnormal operating conditions. The meaning of the conflicting parenthetical phrase was discussed with Al Havinga by telephone. Apparently he wanted all sources sampled, though not necessarily simultaneously. Changing "normal operating" to use different sources until all sources have been used in a set of successive sampling times was considered acceptable; Ohio proposed rules have been drafted in this way, though this still seems like a lot of red tape for very little gain. A sample paragraph is printed with the USEPA paragraphs.	Ohio	NO VOTE Review and TECHNICAL FIX, if needed	In technical amendment pkg.

XVII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVII.7	Page 31839 - continued table footnote 1: delete "Appendix A to". EPA Method 200.7, as published June 1991 (revision 3.3), incorporates the Appendix A of some earlier versions into the body of the procedure. Note that footnote 3 does not refer to an appendix of Method 200.7 and that footnote 5 of table (k) (4) of this rule refers to the 1991 version. In paragraph (C) (1), why does it say "one every three years" instead of "during each compliance period . . ."? Also in §141.23, the table in (k) (4) includes the "Atomic Absorption, Platform" method for Antimony, Beryllium, Nickel, and Thallium and the table in (a) (4) should use the same identification labels. §141.23 (i) (1) groups all 12 contaminant MCLs together. It should be revised to separate the compliances for these 12 contaminants, for instance, as shown on a copy of page 31839 (8-25-1992) Page 31840 - left column (6), 2nd sentence: What is "provisional certification"? It should be defined here or a cross reference should be given to a definition or explanation of what it means.	Ohio	Voted 10 HIGH Priority; TECHNICAL FIX	In tech. amendment pkg. In tech. amendment pkg. In tech. amendment pkg. Correct as is. Intend to clarify in tech. amendment pkg.
XVII.8	§141.6(a) (a) (page 30274 of July 1, 1991, FR) is mutually exclusive with §141.80(a) (2) (page 28788 of June 29, 1992, FR), since the Lead and Copper rule failed to change any of paragraphs (b) through (g) of §141.6; §141.6(a) needs correction, perhaps by (at least) adding "or in paragraph (a) (2) of section 141.80" to the first phrase of §141.6(a) (just ahead of the first comma).	Ohio	Voted 10 HIGH Priority; REGULA-TORY SHORT-TERM	In tech amendment pkg.

XVII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVII.9	The following comments are concerning the Phase II Rules as published in the Federal Register on July 17, 1992. §141.23(c) (5) (iii) p. 3580 center column (6th line): prcoedures (sic) §141.23*i) (2) . . .maximum contaminant level s (crossed out) . . .and (changed to "or") selenium. . . Exceeding, for instance a barium MCL does not automatically make other MCLs be exceeded.	Ohio	Voted 10 HIGH Priority; REGULA-TORY SHORT-TERM	In technical amendment pkg.
XVII. 10	The title should still include "**inorganic and**" since paragraph (n) (12) still lists "Sulfate".	Ohio	Voted YES; REGULA-TORY SHORT-TERM	In tech amendment pkg.
XVII. 11	Paragraph (e) includes a list with number (7) omitted. Since dibromomethane didn't seem to be transferred anywhere else, it seems likely that **Dibromomethane** should be (6) and **m-Dichlorobenzen** (sic) should be (7) in paragraph (e).	Ohio	Evaluated above	In tech amendment pkg.
XVII. 12	The titles of §141.40 and §141.50 should include "organic contaminants" rather than "organic chemicals." This would make them consistent with the contents of §141.40 and §141.50 and with the titles of §141.51 and §141.61.	Ohio	Voted YES; TECHNICAL FIX	In tech amendment pkg.

XVII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVII. 13	Paragraph (g) has major inconsistencies! If this paragraph is to apply only to the contaminants in paragraph (e), reasonable corrections are marked on an accompanying photocopy of the July 17 paragraph. If the paragraph (g) is to apply to all of §141.40, many changes are needed, perhaps to: "Analysis for the organic contaminants in this section shall be conducted using the recommended EPA methods, or their equivalent as determined by EPA, as described in the EPA's "Methods for the Determination of Organic Compounds in Drinking Water," revised July 1991 and available with designation PB91-231480 from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The NTIS toll-free number is 800-553-6847."	Ohio	Voted YES; REGULA-TORY SHORT-TERM	In tech amendment pkg.

XVIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVIII.1	Inorganic Monitoring - These rules do not allow for any automative reduction in monitoring frequency if there is no detection or if levels are substantially below the MCL. Monitoring waivers are time consuming to process and always require high level management decision making. Automative monitoring reductions for inorganics should be added to the rules to reduce monitoring costs to the sysem and reduce administrative costs to public water systems.	Florida	Evaluated above	Monitoring proposal would give States flexibility in establishing requirements
XVIII.2	Nitrate and nitrite monitoring - During the state rule making process, we were informed by representatives from certified laboratories that nitrates and nitrites are determined during the same analytical test as referenced in 40 CFR 141.23(k)(1). We, therefore, saw no need to have separate sampling requirements for them and consolidated the monitoring requirements for these two contaminants for the sake of simplicity. The need to have separate monitoring requirements in the federal drinking water regulations for nitrates and nitrites should be reevaluated.	Florida	Evaluated above, see II.3	See Nitrite recommend-ation
XVIII.3	Fixed detection levels - The Phase Ii rule has fixed detection levels that are used for compliance purposes. Many laboratories have begun to comment that these are unrealistic and that the program should continue to rely on statistical representations of the detection limit. This rule should be reevaluated.	Florida	Evaluated above	Requirement is being evaluated

XVIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVIII.4	Unrgulated contaminant monitoring - The requirement under 40 CFR 141.40(k) that systems serving less than 150 connections send in a letter stating that their system is available for unregulated contaminant sampling is difficult to administer and causes unnecessary compliance problems. The rule should be revised to either eliminate unregulated contaminant monitoring for this size system or to make their monitoring reduction automative unless contacted by the state. Also, the rule currently requires repeat monitoring under 40 CFR 141.40(1) for the remaining Phase I unregulated contaminants every five years, but only requires one-time monitoring for the Phase II unregulated contaminants under paragraph (n) of the same section. Repeat monitoring, if any, should be the same for both and fit into the 3-year period/9-year cycle monitoring framework concept.	Florida	Evaluated above	See Unregulated Contaminant recommend.
XVIII.5	VOC and pesicide monitoring - To reduce monitoring costs, it is important to reduce the number of contaminants that must be repeatedly monitored. An authomatic reduction in monitoring for an entire monitoring cycle, that is based on a lack of a detection and no recent use of that contaminant, could be incorporated into the rules. This would eliminate the need to process a monitoring waiver.	Florida	Evaluated above	Monitoring proposal would reduce baseline testing and allow States to focus monitoring in vulnerable areas
XVIII.6	Rewriting for clarity of organization should be the single greatest purpose in any review of the federal regulations. We have begun to summarize the monitoring requirements into tables that may be in the future supplant the excess verbiage of our present rules. Maybe this would be a way for the federal rules to be understood by the average water system operaor and reduce the need for state programs to translate federal rules into understandable language.	Florida	Evaluated above	See reformatting subgroup issue

XVIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVIII.7	§141.24(f)(11)(iii) - monitor annual VOC during quarter of highest value - other consideration is lab availability, results of other area analysis (may be higher other quarter), accessibility (well may be down), meaningless difference in values and more commitment to monitor at other time.	Florida	Evaluated above	Monitoring proposal would establish a minimum of 1 sample during period of vulnerability
XVIII.8	Inequity in regs - arbitrary - large system do this, small do other. 141.24(n)(4)(ii) and (iii) >3300 called 2 samples, <1 sample for SOC monitoring after a non detect in first 4 qtrs.	Florida	Voted 10 MEDIUM Priority, 1 LOW Priority; REGULA-TORY LONG-TERM	See efficiency issue 4 in monitoring subgroup issue
XVIII.9	Too specific - too much "how to" instead of what to do i.e. 141.24h(1-2) and 141.40n(5-6) requiring SOC (reg & unreg) collected at same sampling point, just needs to be representative.	Florida	Voted 6 HIGH Priority, 4 MEDIUM Priority; REGULA-TORY LONG-TERM	See flexibility issue 2 in monitoring subgroup issues

XVIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XVIII.10	Need to delay monitoring requirements for asbestos and dioxin since no PE samples from EPA, then no cert. labs for analysis.	Florida	Voted 10 HIGH Priority, 1 MEDIUM Priority; REGULA-TORY LONG-TERM	See Laboratory Capacity recommend.
XVIII.11	IOC, SOC, VOC - allow states to reduce monitoring, not get into waiver requirements.	Florida	Evaluated above	Monitoring proposal gives States flexibility in setting monitoring requirements

XIX. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIX.1	P.602-3 - (Table) Analytical Method 200.7 or 200.7A inconsistency. Barium, Cd, CT, As	Maryland	TECHNICAL FIX	In tech. amendment pkg.
XIX.2	P.602 - (Table) Analytical Method Cd 213.1 removed? - Analytical Method Cr 218.1 removed?	Maryland	TECHNICAL FIX	No change required; 213.1 & 218.1 should have been removed

XIX. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIX.3	P.617 - Why no Analytical Method Table for the SOCs?	Maryland	Federal Register notice pending	See Solutions-in-Progress recommend.
XIX.4	Toxaphene - Summary of Phase II Regulations (Orange Booklet) lists method 525.1 as acceptable. Not in CFR(h)(12)(vii). Which is correct?		Vtd 11 HIGH Priority; GUIDANCE or REGULA-TORY SHORT-TERM	Correction made in 57 FR 31842, 7/17/92
XIX.5	Since an MCL violation would normally be based on the average of two samples, is failure to collect the second sample treated as a monitoring violation, or as an MCL violation? If a monitoring violation, 40 CFR Part 141.32 requires notification within 90 days; if an MCL violation 141.32 requires community systems to provide electronic notice within 72 hours.	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required

XIX. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XIX.6.	Since it seems to fit neither type of violation exactly, is there a suggested format or required language for the notification?	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required
XIX.7.	In determining a violation, and in order to avoid repeat visits, may two samples collected on the same day be used?	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required

XX. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XX.1	Some states have received approval to issue waivers different from what is stated in the guidance or in the USEPA rules. Some states have discussed with USEPA other implementation issues, which if approved, would be of great benefit to us. These kinds of approvals for implementation should be shared with other states.	Indiana	Evaluated above	See Technical Transfer recommend.
XX.2	It is important to look at regulatory change. For example, we should discuss in more detail the difference between large and small supplies, both community and non-community. We all talk about how small supplies are not expected to comply. As a goal, we should develop new regulations or additional guidance which would allow states to monitor small supplies separately.	Indiana	Evaluated above	Monitoring proposal would establish uniform baseline requirements for all system sizes but allow States to target large systems if they so chose

XXI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Action**	**Workgroup Disposition**
XXI.1	141.40(l) - "all community and non-transient, non-community water systems shall report the monitoring required in 141.40 no less frequently than every five years from the dates specified in 141.40(a). 141.40(n)(1) - "Each community and non-transient non-community water system shall take four quarterly samples at each sampling point for each contaminant listed in paragraph (n)(11) of this section and report the results to the state. Monitoring must be completed by December 31, 1995."	Region I	Vtd 7 HIGH Priority, 3 MEDIUM Priority; REGULA-TORY LONG-TERM	See Unregulated Contaminant recommend.
XXI.2	July 17, 1992, FR, pg. 31846 (n)(11) List of unregulated organic contaminants: 3-hydroxycarbofuran - Method 581.1? Incorrect method number (Should be Method 531.1.)	Region I	Evaluated above	In tech. amendment pkg.
XXI.3	Unregulateds monitor once.	Region I	Evaluated above Part of XXI.1	Guidance/ clarification required
XXI.4	Allow flexibility in compliance period sampling schedules. i.e., put a system in 2nd, 3rd yr. This compliance period and 1st era next compliance next time.	Region I	Vtd 9 HIGH Priority; REGULA-TORY LONG-TERM	Monitoring proposal would not specify sampling schedules
XXI.5	Performance Based Standard - But there needs to be an oversight mechanism.	Region I	Evaluated above	See Analytical Method Approval recommend.
XXI.6	HQ has to develop a policy and make a decision on dioxin certification. On specialty contaminants. Needed to do this last year. It was on State ratings.	Region I	Evaluated above	Guidance/ clarification required

XXI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Action**	**Workgroup Disposition**
XXI.7	SNCs for monitoring do not apply for first 3 year cycle because we haven't given them enough time. Startup time is required.	Region I	Voted 6 HIGH Priority, 1 MEDIUM Priority; GUIDANCE - OGWDW Guidance (SNC)	See timing issue of monitoring subgroup issues
XXI.8	Keep us out of enforcement until the end of the three-year compliance period.	Region I	Voted 8 HIGH Priority, 1 MEDIUM Priority; GUIDANCE Confirm that Fed. Enf. only at end of 3-yr period. HQ Guidance	See timing issue of monitoring subgroup issue
XXI.9	Clarify policy on grandfathering. One for four trade off in pesticides.	Region I	Evaluated above	See grandfathering issue in monitoring subgroup issues

XXI. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Action**	**Workgroup Disposition**
XXI.10	This waiver process is not very realistic when you compare cost of a waiver vs. monitoring for small systems. Time is too short.	Region I	Voted 3 HIGH Priority, 6 MEDIUM Priorty; OTHER Reg. Guidance	Monitoring proposal drops Federal requirements for granting waivers
XXI.11	Effort into supporting state waiver determinations.	Region I		Monitoring proposal drops Federal requirements for granting waivers

XXII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	Workgroup Evaluation	**Workgroup Disposition**
XXII.1	Support principle that any proposed or promulgated method include all analytes (unregulated, previously regulated) that are in the Scope of the Method.	Unknown	Vtd 8 HIGH Priority; REGULATORY LONG-TERM	Guidance/ clarification required

XXIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Action**	**Workgroup Disposition**
XXIII.1	Section 141.24 (f)(15)(i) in the Phase II Jan. 1991 FR States that samples below the detection limit count as zero. This sentence has been omitted in the Phase IIB Jul. 1991 FR. Technical fix.	Region III		Technical fix required
XXIII.2	Phase II/V rules underestimate the costs of implementing the rule with respect to source identification and corrective active on pesticides contamination. Anticipation of pesticide detects in many PWSs put the PWS in defensive positions on how to explain the risks and health effects to customers and the media. EPA prepares simple fact sheets on each pesticide as part of consistent public education campaign.	Region III		See Insufficient Information issue 2 of monitoring subgroup issues
XXIII.3	Defining reportable violations. How to deal practically with research efforts and non-certifiable analytical methods that might yield values exceeding the MCL. (Assuming standard monitoring has been performed.) Set up policy that counts only necessary reporting.	Region III		Guidance/ clarification required
XXIII.4	The July 17, 1992 Rulemaking, p. 31821, second full paragraph, references §142.92 where EPA may rescind State waivers. Where is §142.92?	Region III		Still to come -- technical amendment
XXIII.5	How to interpret compliance based on monitoring data for those Phase II contaminants that were previously monitored as unregulated and show elevated levels of the contaminant. Evaluation of single data vs. running averages become subject to different interpretations before and after the July 30, 1992, effective date. How to factor in grandfathering also gets obfuscated.	Region III		See timing issue of monitoring subgroup issues

XXIII. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Action**	**Workgroup Disposition**
XXIII.6	§141.24(h) (pesticides/SOCs) has **not** been modified to allow PWS serving <150 service connections to delay monitoring until 1996. §141.24(h)(4)(i) requires systems to "...take four consecutive quarterly samples for each contaminant listed in §141..61(c) during each compliance period starting January 1, 1993." Inorganic monitoring has also **not** been modified. §141.23(a)(1) & (2) and 21141.23(c)(1) still state "... beginning in the compliance period (starting) January 1, 1993." Both of these passages should have been modified in Phase V as §141.24(f)(VOCs) was, by removing references to dates and replacing them with "beginning with the initial compliance period, ..."	Region VIII		In technical amendment pkg.
XXIII.7	§141.40(e) inadvertently dropped dischloromethane as an unregulated. Need to reinstate.	Region VIII		In tech amendment pkg.
XXIII.8	§141.24(f)(17)(C) & (D) seems to conflict the Table 15 of the Phase V final rule (07/17/92, p. 31807) regarding acceptance limits for the three new VOCs. Need to clarify.	Region VIII		To be included in Q & A; correct in regulation as is
XXIII.9	§141.23(k)(4) table. Antimony. Method 220.9 should read 200.9.	Region VIII		Technical fix required

XXIV. ADDITIONAL ISSUES				
Ref. #	**Current Status / Problem**	**Source**	**Workgroup Evaluation**	**Workgroup Disposition**
XXIV.1	§141.61(b) lists BAT's as follows: Toluene - GAC; Toxaphene - GAC & PTA. §141.62(a) lists BAT's (for V&E purposes) as follows: Toluene - GAC & PTA; Toxaphene - GAC. There appears to be a mix-up in BAT's between the two chemicals.	Region X		Technical fix required

OTHER ISSUES SUBMITTED TO THE WORKGROUP

(See Appendix J for Expansion of the Following Issues)

Rule or Subject	# of Issues
Disinfection/Disinfection By-Products Rule	2
Enforcement	5
Federal-State Toxicology and Risk Analysis Committee (FSTRAC) Report	1
Fluoride Rule	2
Health Advisories	3
Lead and Copper Rule	13
Lead Contamination Control Act - Statutory	1
Primacy	2
Public Notification (PN) Rule	5
Radionuclide Rule	1
Safe Drinking Water Act (SDWA) Reauthorization - Statutory	11
Surface Water Treatment Rule (SWTR) Health Advisories	10
Total Coliform Rule (TCR)	7

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APPENDIX F

Phase I/II/V Implementation Workgroup

Problem Statements and Constituent Votes

March, 1993

TABLE OF CONTENTS

PREFACE

This appendix contains a table of twenty-five long-term problem statements that were developed by the Workgroup members shortly after the first meeting. The statements address long-term concerns regarding EPA's chemical monitoring program that may or may not have been raised in the constituents' issues (Appendix E). These statements were sent to the constituents for input regarding four factors: (1) type of change required, (2) importance, (3) do-ability, and (4) timing. After reviewing constituent responses, the "importance ranking" was determined to be the factor providing the most useful information.

Examining the summary of the ranking results (page F-13) will provide the reader insight into those problems which give the greatest concern to states in different Regions.

LONG-TERM ISSUES Within Scope of Phase I/II/V Implementation Workgroup
September, 1992

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(1) Standardized Monitoring Framework Needs Simplification, and Better Integration With Past Rules. **Current State:** Standardized monitoring is complex, and it is not fully integrated with other drinking water monitoring requirements. **Impact of the Problem:** The prescriptive federal requirements significantly limit a state's ability (and flexibility) to develop a coordinated and simple monitoring program for its PWSs. **Desired State:** Monitoring is integrated and simplified to the point that implementation and enforcement are improved for all users - the systems, states and EPA.				
(2) Simplification of Regulations. **Current State:** The drinking water regulations are far too long and complicated. **Impact of the Problem:** State agencies and water suppliers become discouraged and frustrated attempting to determine what their responsibilities are under the regulations. **Desired State:** The regulations are consolidated, streamlined, and simple so that they can be easily read and understood.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(3) Redesign Unregulated Monitoring Requirements. **Current State:** The unregulated contaminant monitoring program yields more data than are needed to determine whether those contaminants warrant Federal regulation. **Impact of the Problem:** Some public water systems are spending scarce funds needlessly. **Desired State:** An unregulated contaminant monitoring program which yields only the needed amount of data and, thus, reduces costs to systems.				
(4) Federal Partnership with States and Reform of Regulation Development Process. **Current State:** EPA meetings with States to discuss policy or regulation development are potentially hampered by laws treating States as any other interest group. **Impact of the Problem:** EPA programs fail to take early advantage of State perspectives and real work circumstances that would improve program effectiveness and efficiency. **Desired State:** State regulatory agencies would be officially recognized as Federal partners in program development.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(5) Simplification of Organic Monitoring Requirements. **Current State:** The monitoring requirements for organic compounds - SOCs and VOCs (1) presume all systems are contaminated and (2) are excessively detailed in attempting to address every possible circumstance. **Impact of the Problem:** Excessive initial monitoring is imposed on all systems to prove this presumption untrue, misdirecting resources from actual problems to satisfying requirements for meeting hypothetical problems. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex, which wastes unacceptable amounts of time among State and Regional Office staff to clarify requirements and resolve implementation issues. **Desired State:** The sampling requirements should (a) focus sampling activities into efficiently identifying circumstances that indicate a significant probability of contamination and accurately quantify those problems and (b) be simple enough to grasp with one reading and simple enough to remember with two readings.				
(6) Technical Transfer of State Sampling Waiver Strategies and Options. **Current State:** Many States do not fully understand the monitoring waiver strategies that may reduce sampling frequencies for qualifying systems and are individually reinventing waiver programs. **Impact of the Problem:** These States may not be taking full advantage of this program option and are wasting resources in waiver program development. **Desired State:** All States understand the full range of possible monitoring waiver program strategies.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(7) Form Issue Tracking System for Laboratory Analysis and Certification Issues. **Current State:** Numerous unresolved analytical method and laboratory certification issues are currently being worked on by different offices within EPA. There is very poor communication regarding responsibility, status, and expected resolution time-frames for these issues. **Impact of the Problem:** Besides giving the appearance of bad planning and poor coordination, States and EPA Regions cannot adequately implement the new regulations in a timely fashion. Also, many issues brought to this workgroup are put off because they are being addressed by another group. **Desired State:** A system exists for the satisfactory resolution of all laboratory issues, and an on-going, open system of communication is developed.				
(8) Process for Identifying and Adopting New Analytical Methods. **Current State:** System for approving analytic methods is inflexible and too slow to keep pace with laboratory certification and compliance monitoring schedules. **Impact of the Problem:** New and alternative methods cannot be adopted in the time frame required by most rules (i.e., Colilert). **Desired State:** More flexibility and timeliness in method approval so labs can use the best method available at a price water systems can afford.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(9) Form Issue Tracking System for FRDS issues. **Current State:** Communication regarding FRDS and data management issues (new documentation, modernization effort, reporting deadlines established in guidance) is very poor. **Impact of the Problem:** States and Regions are not aware of on-going efforts or the status of them. Deadlines are missed due to lack of clarity regarding reporting requirements. FRDS documentation cannot be kept up-to-date. **Desired State:** Communication regarding all data management and enforcement requirements/activities is coordinated, centralized, and ready accessible to any State or Region.				
(10) Surface Water Monitoring Requirement Adjustments Based on Flow Conditions. **Current State:** Regulations call for PWS's with surface sources to sample following a particular monitoring schedule that, due to high flow or low flow conditions, may or may not detect contamination. **Impact of Problem:** Inaccurate data over a period of time will give an unrealistic picture of actual conditions. **Desired State:** States have the freedom of adjusting monitoring requirements to reflect changing flow conditions.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(11) Data management transactional costs and ease of compliance tracking have not been adequately addressed as part of the regulation development process. **Current State:** Upon promulgation, every new regulation results in additions or modifications to FRDS reporting, causing each state to individually reprogram its data management/compliance tracking system. **Impact of the Problem:** States are continuously reprogramming their data systems with each new regulation, resulting in extremely complicated programming. This high level programming results in higher modification costs (staff time or contracting dollars) when the next set of regulations need to be included. **Desired State:** Data management compliance tracking systems should be standardized, relatively simple, and easy to use and understand.				
(12) Regulations need to be written as clearly as possible to avoid varying interpretations, misinterpretations, and excessive implementation costs. **Current State:** The regulations are unorganized, not cross-referenced, and unclear in many instances. **Impact of the Problem:** Valuable time is spent by each state and EPA Regional Office in interpreting the regulations. This also results in different states interpreting the regulations differently, which may lead to inconsistent implementation of monitoring and unnecessary costs. **Desired State:** Regulations are written in an organized fashion (including cross-references) using simple language so as to be easily understood.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(13) Complete Packages (Rule and Data Guidances at Time of Rule Proposals). **Current State:** Regulatory packages from U.S. EPA are difficult to understand, incomplete and not timely. **Impact of the Problem:** Considerable confusion exists on the part of both PWSs and States and results in incomplete and inaccurate understanding and implementation of the regulation, missed reporting deadlines or incomplete data, and failure to achieve compliance on an orderly, timely schedule. **Desired State:** A complete concise regulatory package that can be clearly understood by the regulated community and primacy agents and which includes at a minimum the regulation, guidance, data processing flow charts and elements, reporting requirements, analytical method/laboratory certification guidance and samples, SNC definitions and primacy extension information, to be published as a complete inclusion.				
(14) Regulation of Non-Community Water Systems. **Current State:** Non-community water systems often do not have the financial resources required to meet the regulations. **Impact of the Problem:** Non-community water supplies have high non-compliance rates. **Desired State:** The regulations should reflect the unique implementation problems of transient and non-transient non-community water systems, as well as reflecting the existing resource and financial picture of the primacy programs that must regulate them.				
(15) Relief From M/R and Requirements and Simplified Waiver System. **Current State:** Phase II, IIB and V monitoring/reporting (M/R) requirements are extremely complex and do not make sufficient use of previous monitoring data. The monitoring waiver process is also complicated. **Impact of the Problem:** M/R is costly and difficult to implement. The waiver system does not provide the monitoring relief originally envisioned. **Desired State:** M/R requirements and a waiver system that are protective of the public health, simple to implement, and cost-effective.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(16) MDLs Are Several Orders of Magnitude Below the MCLs. **Current State:** Prescribed Method Detection Limits (MDLs) are several orders of magnitude below Maximum Contaminant Levels (MCLs). **Impact of the Problem:** Laboratory certification requirements are too stringent and laboratory (and PWSs) costs are increased. The practicality of the methodology has been questioned. **Desired State:** MDLs that are set closer to the MCLs with the assistance of EPA, state, public and private laboratories.				
(17) National Repository of Certified Laboratories. **Current State:** Not all EPA, state, public and private laboratories can perform all analyses under Phases II, IIB and V. **Impact of the Problem:** Since there is no central repository of certification information, states and public water systems are having difficulty finding laboratories which can perform analyses they cannot. Confusion and delay in implementation have resulted. **Desired State:** Establishment and maintenance of a national repository of certification information including methodology and contaminant capability.				
(18) EPA HQ Does Not Sufficiently Use EPA Regions' Expertise In Rule Development. **Current State:** EPA Headquarters does not sufficiently use regional expertise, experience and advice in rule development. **Impact of the Problem:** Implementation problems result and the rules are not practically enforceable. **Desired State:** EPA regions' comments and advice on rule development are given more weight by EPA Headquarters.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(19) Better Guidance on Waivers. **Current State:** Susceptibility and usage waivers are allowed for primacy programs to utilize, but very little discretion or guidance is available. **Impact of the Problem:** Uniformity does not exist when attempting to implement waivers. In addition, inability to issue waivers of substantive nature, when apparent rationale exists to do so, causes public water system and primacy program frustration and substantially increases the workload and expense for each affected party. **Desired State:** Primacy program is allowed to utilize the waiver process whenever they feel the process is justified.				
(20) Implementation Workgroups For Future Regulatory Packages Be Formed Before Draft Rule. **Current State:** Present workgroup is only working with Phase I, II and V issues. **Impact of the Problem:** Future regulatory rule packages with implementation problems, inconsistencies, and technical errors will continue to be frustrating to the regulated community and the implementing agencies. **Desired State:** *Ability to impact rule packages before the formal rule-making process begins.*				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(21) Acknowledgement of State and Regional Ability to Make Decisions (Flexibility) **Current State:** Current rules identify options and flexibility for states and regions under the SDWA, but regulatory language often is overly prescriptive and in effect reduces regional, state and local options. **Impact of the Problem:** The current process places the regions and states in a reactive role in responding to EPA with limited options for development of state rules and implementation plans. States become regulated much like PWSs and significant resources are expended responding in detail to Headquarter directions. Limited state and PWS resources are expended in response to national priorities that may not reflect local need/risks. **Desired State:** Effective (hierarchical) partnership between EPA headquarters, regional offices, and states, based on realistic appraisals of expertise, resources, and commitment to SDWA.				
(22) Reduction/Simplification of Special Primacy Requirements for All Regulations. **Current State:** With the promulgation of each new regulation/rule package, states must comply with special primacy requirements which are in addition to the general primacy requirements enumerated elsewhere in each rule and in the PWSS primacy regulations. **Impact of the Problem:** Compliance with these special primacy requirements 1) can be extremely time consuming and burdensome for what can be perceived to be of little value to the states, 2) they delay approval of state PWSS program revisions and 3) they represent an extra, unnecessary layer of federal "oversight" on state PWSS programs. **Desired State:** Additional primacy requirements (if necessary) that are less burdensome to the states and that are incorporated into the general requirements of each regulation and/or the PWSS program primacy requirements.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(23) Flexibility in Monitoring Requirements for Unique State Circumstances (e.g., roof catchments) and Alternative Technologies (e.g. point-of-use treatment). **Current State:** The cost of meeting monitoring requirements (e.g., Phase II/V, SWTR turbidity monitoring) are excessive for the smaller public water systems. **Impact of the Problem:** These high costs make the use of alternative technologies (e.g., roof catchments, point-of-use treatment for surface water) economically unfeasible, especially for those systems where centralized monitoring or treatment is not a viable option. **Desired State:** Greater state flexibility in the implementation of monitoring requirements which give water systems more source and treatment options and support the use of alternative technologies.				
(24) SNC's Addressed as an Implementation Issue in Regulation Development. **Current State:** New significant non-compliance (SNC) definitions are developed for new regulations after they have been promulgated. **Impact of the Problem:** More and more SNC definitions are created for each new rule, resulting in additional state implementation activities and the need for greater resources to appropriately address all the new (and existing) SNCs. **Desired State:** An improved method of developing new SNC definitions that would motivate States to give greater attention and resources to SNC resolution.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

PROBLEM STATEMENT	TYPE	IMPORT	DOABLE	TIMING
(25) Standard Data Management Format is Not Used. **Current State:** A standard format for obtaining and transferring analytical measurement data is not specified or discussed in drinking water regulations. **Impact of the Problem:** It is difficult and expensive to compile monitoring data at the state and federal levels. Thus, monitoring information often cannot be used to quickly evaluate trends or to help with the development of future regulations. **Desired State:** A standard data gathering/reporting format be adopted and incorporated (retroactively) into all monitoring rules.				

TYPE of change required: Guidance, Regulation, Statute
IMPORTance: Ranking: 1=highest; 2=med. high; 3=moderate; 4=med. low; 5=low
DOABLE to point of making Workgroup Recommendations: By Group; By Others; By Either
TIMING to have recommendation completed by group: 6 mos., 12 mos., 24 mos.

RANKING SUMMARY - LONG TERM I ES WITHIN SCOPE OF WORKGROUP

(Arranged by EPA Regions)

Problem Statement	*National Average*	Regional Averages									
		R.1	R.2	R.3	R.4	R.5	R.6	R.7	R.8	R.9	R.10
1	***1.7***	2.4	2	1.5	2	1.9	1	1.7	1.7	-	1
2	***1.6***	1.8	1.5	1.5	2	1.1	1	1.8	1.3	-	2
3	***2.1***	2.1	2	2.2	2	2.6	2	2.3	1.7	-	2
4	***2.4***	1.8	3	2.2	3	2.3	2	2.7	1.5	-	3
5	***1.7***	1.8	4.5	1.7	1	1.4	1	1.3	1.3	-	1
6	***2.5***	2	3	3	2	3.6	3	2.2	1.4	-	2*
7	***2.4***	2.1	2.5	2.7	3	2.6	2	2.2	1.9	-	3
8	***2.2***	2.3	3	2.8	2	2.6	1	2.3	1.4	-	2
9	***2.5***	2.2	4	2.7	2	2.1	3	2.5	2.2	-	2
10	***2.9***	3.1	1.5	4.5	3	3	3	3.6	2.8	-	2*
11	***2.0***	2.4	2.5	1.3	2	1.7	2	2.2	1.8	-	2
12	***1.7***	2.4	3	1.8	2	1.1	1	1.7	1.5	-	1
13	***1.8***	2	2.5	1.5	2	1.4	1	2.2	1.4	-	2
14	***2.4***	2.1	3	2.7	2	2	3	2.6	2.4	-	2*
15	***2.0***	1.6	4	2	2	1.4	1	1.3	1	-	1*
16	***2.6***	2.7	4.5	3.2	2	2.3	3	2.1	1.3	-	2
17	***3.1***	2,7	3	3.5	3	2.9	4	3.5	2.7	-	3
18	***2.2***	2.5	2	2.5	2	2.3	2	2.2	2	-	2
19	***2.3***	2.1	3	3	2	2.6	2	2.2	1.4	-	2*
20	***1.9***	2	2	2	2	1.4	2	2.2	1.7	-	2
21	***1.9***	1.9	3	1.8	3	1.6	1	1.8	1.2	-	1
22	***2.1***	1.5	3	2.5	2	2	2	2.2	1.3	-	2
23	***3.0***	2.3	4	2.8	3	2.9	5	3.1	2.2	-	2
24	***2.7***	2.6	3.5	3.3	2	2.3	3	2.8	2.2	-	3
25	***2.8***	3.1	4	2.8	2	3	3	3.2	2.5	-	2

* Late State submittal (not factored into Reg'l summary) does not concur with Reg'l average.

RANKING: 1 = HIGHEST; 2 = MED. HIGH; 3 = MODERATE; 4 = MED. LOW; 5 = LOW

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APPENDIX

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PREFACE

After receiving concerns about the implementation of the Phase I/II/V Regulations from states and EPA Regions (Appendix E), the Workgroup categorized the concerns by subject. Seven subgroups were formed around these subject areas as follows:

Analytical and Laboratory Certification
Miscellaneous (later renamed Communications)
Regulatory Re-Formatting
Standardized Monitoring
Technical Fixes
Unregulated Contaminants
Waiver Guidance and Technical Transfer

Based on input received from the above-referenced appendix (as well as responses to the Long-Term Problem Statements, Appendix F), all subgroups (except the Technical Fix Subgroup) developed issues and potential options to address the issues. This appendix contains those issues/options.

APPENDIX G

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National Phase I/II/V Implementation Workgroup

December 8, 1992

ANALYTICAL & LABORATORY CERTIFICATION ISSUES

Enclosed are six analytical method or laboratory certification issues. For each issue, options are presented on which your preference is sought. The first option is the status quo, the last is a "no opinion" option. In the preference box for each issue, please check your preferred option or options (they are not always mutually exclusive). If there are any options you believe you could not live with, please indicate so and explain why in the "Comments" section. We welcome your written comments, but please also fill-out the preference box for all issues. A no opinion answer is more helpful to us than a no response.

Thank you for your time. If you have questions, please contact the representative who sent you this issue-package.

ISSUE 1 *The process for identifying and adopting new analytical methods, or adopting improved versions of previously promulgated methods is too slow and complex to meet current drinking water laboratory certification and compliance monitoring requirements.*

BACKGROUND:

Recent drinking water regulations cite different versions of the same analytical method, do not promulgate a method for all regulated contaminants contained in the scope of the method (e.g. ICP for Phase II metals), or do not include the latest improved version of an EPA method (e.g. Method 515.2).

To be certified a laboratory must use "approved" analytical methods. A new or revised analytical method must be approved by publication in a Federal Register Notice (FRN). It can take up to a year to publish a technical amendment that approves a method, which has only minor revisions to a previously approved method. It can take 12 to 36 months to comply with statutory requirements for public notice and comment to publish a FRN, which approves a method that is new or substantially revised. Methods developed or revised by EPA or other standard-setting organizations (e.g. Standard Methods) go through this process.

A method developed by a vendor or an analytical laboratory can apply for nationwide approval through EPA's alternative test procedures (ATP) approval process, which is operated by an EPA research and development laboratory in Cincinnati. If the submitted method is judged to be substantially different, equivalency data must be submitted. All methods passed through the ATP process are published in the Federal Register through a process similar to that described above.

Several options for changing the method approval process are presented next.

Option 1: Status quo. Current situation is as good as it can be under current statutory requirements and resource limitations.

Option 2: Obtain a statutory change as part of reauthorization of the Safe Drinking Water Act, which permits EPA to more rapidly adopt new technologies and approve new or improved versions of promulgated EPA analytical methods.

Advantage - could adopt approval process used in other programs or agencies that is faster and requires less EPA resources.

Disadvantage - requires legislation.

Option 3: Work with EPA lawyers to find creative ways under current statutory authority to facilitate this process, such as more delegation of authority to sign notices.

Advantage - this is easier than obtaining a legislative change.

Disadvantage - new or substantially revised methods are still likely to require public notice and comment in the Federal Register, a process which takes 12-36 months. Delegating signature authority on these notices may only save a couple of months.

Option 4: Have EPA adopt performance-based methods, which means that in each standard compliance method, EPA would specify key performance criteria that an alternative method must meet to be approved for compliance analyses. The performance criteria would be specified for each contaminant, and would cover sensitivity, precision, accuracy, matrix effects and sample handling procedures. The user would have the option of using the promulgated EPA method or to use any method (including revised or new EPA methods) that meets the performance criteria in the promulgated method.

Advantages - eliminates the need for EPA to spend resources to approve alternate methods. Burden is on the user, not EPA, to keep detailed documentation supporting the performance of the method being used for analysis of compliance or certification samples.

Disadvantages - criteria may not be in place for several years; will require significant programmatic changes to develop a reliable oversight and enforcement system; and the recordkeeping burden may discourage users from developing performance-based alternative methods.

Option 5: First, add resources to the current alternative test procedures (ATP) approval process. Second, modify ATP to again allow EPA Regional Administrators to approve methods for local rather than nationwide use.

Advantage - many method development groups are familiar with the ATP process, and many EPA regions liked and used limited-approval, local-use methods.

Disadvantages - a regulatory or perhaps statutory change may be needed to sanction "local-use" method approvals. A proliferation of special, local-use methods can make auditing more difficult.

Option 6: No opinion.

ISSUE 2: *Method detection limits (MDLs) specified as monitoring triggers for some contaminants are orders of magnitude below the maximum contaminant levels (MCLs) and maximum contaminant level goals (MCLGs).*

Option 1: Status quo.

Option 2: Obtain an MDL from several laboratories for each chemical that meets this criteria. Compute an average MDL to change the current monitoring trigger concentrations.

Advantage - inter-laboratory MDLs are relatively easy to obtain, if resources are available.

Disadvantages - it is not likely the MDL would increase very much. Thus, even the inter-laboratory MDL for glyphosate (MDL = 6 ppb) will probably still require a monitoring trigger well below the MCLG of 700 ppb.

Option 3: Arbitrarily but consistently specify a monitoring trigger closer to the MCLG. For example, for contaminants with health effects that are not acute, the monitoring trigger would never be less than 10% of the MCL.

Advantage - uses the criteria being considered for selecting chemicals to regulate in Phase 6B.

Disadvantage - the 10% or other criterion could be viewed as too arbitrary.

Option 4: No opinion.

ISSUE 3: *40 CFR §141.23(k)(5) is not specific enough as it pertains to laboratories approved by EPA or the State. It does not contain provisions for on site inspections of laboratories. Furthermore, the certification manual is not formalized or promulgated. The result is that some requirements for certification are guidance and some requirements are regulation.*

Option 1: Status quo.

Option 2: Put the Certification Manual into regulations.

Advantages - would provide a standard set of requirements that would be in a final form when promulgated. This would require that the certification manual be updated with every rule.

Disadvantages - would limit or eliminate any flexibility in development of standards for certification. Changes to the certification manual would be regulatory rather than guidance changes. The regulatory change process is often slow and resource-intensive.

Option 3: Make the Certification Manual guidance and remove all certification requirements from the regulations.

Advantages - would allow the most flexibility in creating certification standards. Changes would be able to occur quickly. Any problems that occur due to the requirements of a rule could be dealt with simply.

Disadvantages - there would be no requirements to update the certification manual with every rule. No way to assure that all states are consistent in their certification practices.

Option 4: No opinion.

ISSUE 4: *Certification for regulated VOCs requires a laboratory to achieve an MDL of 0.5 ppb. The MDL is not used as a certification requirement for other regulated organic contaminants.*

BACKGROUND:

If a utility's laboratory passed EPA's PE samples for VOCs, used an approved method, but achieved an MDL for 1,2,4-trichlorobenzene of 0.6 ppb, certification could be denied under current requirements. Because the MDL is 0.1 ppb more than the certification MDL, it is appropriate that the utility not automatically qualify for "no detect" status for 1,2,4-trichlorobenzene. But it seems unnecessary to disqualify the laboratory's compliance monitoring data for a contaminant with an MCL of 70 ppb.

For example, this laboratory could be consistently providing high quality monitoring data that indicates a background 1,2,4-trichlorobenzene concentration of 1-2 ppb in the drinking water source. However, under current rules, the data could not be accepted for compliance because of the MDL problem.

Option 1: Status quo.

Option 2: Require that the detection limits specified in the regulations be a certification requirement for all contaminants, not just for VOCs.

Advantage - makes the certification requirements more consistent.

Disadvantages - Issue 2 above noted that many MDLs are currently set as monitoring triggers for some chemicals at levels much, much less than the MCLGs and MCLs. If all MDLs were made to be certification requirements, this would prevent many laboratories from obtaining certification.

Option 3: Remove the MDL certification requirement for VOCs.

Advantages - makes the requirements consistent with the certification requirements for other regulated contaminants. Is consistent with Option 3 under Issue 3.

Disadvantage - may be construed as weakening certification requirements for regulated VOCs, which are ubiquitous contaminants and key indicators of drinking water pollution.

Option 4: No Opinion.

ISSUE 5: *There is concern about EPA not having adequate time to send out Performance Evaluation (PE) samples so that laboratories can be at least conditionally certified for Phase II/V analyses in time for the 1993 monitoring. The Phase II rule states that certification is based on PE study performance.*

Option 1: Status quo.

Option 2: Allow certification conditionally (not provisionally) without PE samples or on-site visits if statutory deadlines must be met.

Advantages - provides some minimal oversight of the laboratory by the state.

Disadvantages - could result in bad data.

Option 3: Require that monitoring cannot begin until laboratories have been certified.

Advantages - allows States adequate time to certify laboratories and insure the highest quality data possible.

Disadvantages - requires a change in regulations or needs to be included in all future regulations. Disrupts the Standardized Monitoring Framework (SMF). Places public health behind resources as a priority.

Option 4: If laboratories are not certified by the beginning of a monitoring period, push monitoring back to the next compliance period.

Advantages - allows state adequate time to certify laboratories. Keeps monitoring on the SMF schedule.

Disadvantages - requires a change in regulations or needs to be included in all future regulations. Places public health behind resources as a priority.

Option 5: If no laboratories are certified at the beginning of the compliance period, systems may use a laboratory until certification is granted to the laboratory.

Advantages - does not disrupt monitoring schedule. No resource burden on the State.

Disadvantages - no controls on the laboratories and how they perform methods. Could produce bad data and a public health threat.

Option 6: No Opinion.

ISSUE 6: *Since free chlorine will oxidize nitrite to nitrate, analysis for nitrite in a chlorinated system will show no detect. Also, the requirement for nitrite to be analyzed within 48 hours will be very difficult for many water systems to meet.*

Option 1: Status quo, which requires one nitrite sample.

Option 2: Lower the detection trigger to 0.5 ppm and measure nitrite and nitrate in the same sample as "combined" nitrate. This is done by oxidizing all nitrite to nitrate prior to analysis. If the combined nitrate concentration is less than 0.5 ppm, a separate nitrite analysis need not be performed.

Advantages - this option is applicable to all supplies, since natural oxidation of nitrite to nitrate in chlorinated drinking waters can be induced in supplies that do not chlorinate. The advantage is that nitrate samples are more stable, and need not be analyzed within 48-hours. States could permit (without federal involvement) this combined analysis, because the 0.5 ppm trigger is more restrictive than the federal requirement, which sets the nitrate repeat monitoring trigger level at 5 ppm.

Disadvantage - it may be difficult to change any federal monitoring requirements for these acute contaminants, without significant EPA deliberation. To save time the states may have to act on this before EPA can. Also, systems that are expected to have nitrate concentrations between 0.5-5 ppm will have to perform unnecessary repeat nitrate monitoring.

Option 3: Develop and approve a field test kit for nitrite to allow water systems to conduct compliance monitoring. Require sampling before chlorination.

Advantage - quick and simple, makes it easier to meet the 48-hour sample holding time for nitrite analysis.

Disadvantage - need to find resources to evaluate and approve a kit, which is not likely to happen in time to help with 1993 to 1995 compliance monitoring requirements.

Option 4: Waive nitrite monitoring in any system that maintains a free chlorine residual.

Advantages - automatic waiver. Permits systems to continue nitrate sampling using the 5 ppm reduced monitoring trigger, and longer sample holding times.

Disadvantage - may need to determine the chlorine residual at each system that is required to assure that all potential nitrite is converted to nitrate.

Option 5: No opinion.

ANALYTICAL & LABORATORY CERTIFICATION TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option(s) with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain the reasons in the "Comments" area. If you have no preference or no opinion on this set of options, please mark the appropriate section.
3. Please provide any additional comments in the space provided and on the back of this page.

OPTIONS	1	2	3	4	5	6	COMMENTS?
ISSUE 1 (New methods)							
ISSUE 2 (Low MDLs)							
ISSUE 3 (Cert manual)							
ISSUE 4 (Required MDLs)							
ISSUE 5 (PE samples)							
ISSUE 6 (Nitrite)							

COMMENTS:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

National Phase I/II/V Implementation Workgroup

November 12, 1992

Miscellaneous Issues

ISSUE #1: *Information is difficult to obtain and is not collected and disseminated efficiently. Users need easy access to information regarding analysis methods, lab certification criteria, FRDS and data management issues, regulatory changes, guidance, interpretations, funding restrictions, Primacy requirements and monitoring/waiver modifications.*

Option 1: Maintain status quo -- use Hotline Newsletter and informal communication methods.

Advantage - No additional resource expenditures.

Disadvantage - No improvement in dissemination of information.

Option 2: Create a central information distribution center, such as expanding the Hotline responsibilities and activities to receive and respond to all inquiries.

Advantage - Allows general and semi-technical questions and information to be obtained from a central source, allows efficiency in gathering and storing information.

Disadvantage - Major resource commitment.

Option 3: Establish dedicated information handling and distribution centers with specific responsibilities in separate areas such as: Laboratory/certification activities; Data handling/reporting (FRDS II); Regulation modification/guidance/interpretation; health effects/contaminant specific data; etc.

Advantage - Allows specific location to contact experts and knowledgeable people to obtain information and answers.

Disadvantage - Creates multiple information centers which requires major resource commitments and could create confusion as to location of information.

Option 4: Establish mailing lists or bulletin board to automatically send specific type information to a pre-identified group.

Advantage - Provides a mechanism to receive pertinent information (new regulation, guidance, reviewed analysis methods, etc.) without requirement to solicit information.

Disadvantage - Resource commitment to develop meeting lists or bulletin board.

ISSUE #2: *An efficient tracking system is not available for new and revised data handling issues (FRDS). Communication regarding FRDS and data management issues relating to new rules are currently issued from EPA HQ to the Region, where the document goes from the Branch Chief to the Section Chief to the Regional FRDS contact, with the possibility of comments or replies to previous comments, all prior to the State receiving the document.*

Option 1: No change in current activity.

Option 2: HQ should provide guidance to streamline the flow of issues by creating a direct path of communication between HQ and 1) Regional FRDS contact and 2) State FRDS contact, enabling new issues, and current status of earlier issues to be obtained by concerned persons in the Region and State in a more timely manner. An individual from HQ should be designated as the contact person to contact the State and Region when new issues arise, or for status changes/updates.

Option 3: In addition to steps outlined in Option 1, create a dual track of communication, so that as before, all documents are formally sent through the usual channels, and also create a direct pathway between HQ and State/Regional FRDS contacts. Section and Branch Chiefs will still receive issues for their comments, and FRDS contacts will receive issues in a more timely manner.

MISCELLANEOUS ISSUES TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option with a check, "✓".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain the reasons in the comments area.
3. Option 1 is the status quo or existing regulation. You may also select a "No Opinion" option. You are encouraged to provide specific comments on any of the options.

ISSUE / OPTIONS →	1	2	3	4	NO OPINION
ISSUE 1					
ISSUE 2					

COMMENTS: (Please identify issue and option #.)

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

National Phase I/II/V Implementation Workgroup

November 12, 1992

Monitoring and Waiver Issues

Attached is a set of issues and options which address monitoring and waiver issues raised regarding Phases I, II, and V. The first issue presented is a generic one. Following it are specific issues which address problems of flexibility, efficiency, grandfathering data, timing, insufficient information available to implement regulations, and inconsistency.

For each issue, options are presented on which your preference is sought. *In every applicable instance, the first option is the status quo.*

On the tally sheets, please check your preferred option or options (they are not always mutually exclusive) for each issue. If there are any options you believe you could not live with, mark them with a "NO" and state in the "comment column" why. We welcome your comments in a more general sense as well. For example, if you may prefer one option under one situation (e.g., certain system size, ground water or surface water system, or specific type of contaminant), but not in all instances, please note that in your comments.

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Generic Issue: *Framework requirements are too complex and are insufficiently integrated to allow an efficient use of previous monitoring data and other resources. Waiver requirements are overly prescriptive and resource intensive.*

The workgroup identified five options to address the framework monitoring and waiver requirements. These options range from a different, but comprehensive, Federal program, to a program which is designed, as well as implemented, by the States. The five options are presented in order ranging from strongest Federal presence to most latitude to the State.

The five options are:

1. Completely redesign the Standardized Monitoring Framework.

2. Retain the basic framework; make regulatory fixes identified in the problem statements and specific issues on an ad hoc basis.

3. Retain the Standardized Monitoring Framework structure with or without ad hoc regulatory fixes but move waiver requirements out of the regulations and into guidance.

4. Abolish the Standardized Monitoring Framework, including waiver requirements, but require States to submit a monitoring/waiver plan for EPA approval.

5. Abolish the Standardized Monitoring Framework. Have no Federally-mandated monitoring requirements.

Each of these options is discussed below.

Option 1: Completely redesign the Standardized Monitoring Framework.

Description: Many problems have been identified regarding the framework. One option is to redesign it, retaining those features which are effective and amending those that are not. A predominant philosophy could be agreed to (e.g., how much flexibility to provide) and the framework could be redesigned around that philosophy.

Advantages - Problems can be addressed in a comprehensive, consistent manner

- State monitoring and waiver programs would be consistent nationwide

Disadvantages - It may be difficult to achieve consensus on an overall strategy and on each of the component parts; as a result, adoption may be delayed significantly

- A uniform approach may result in less flexibility in certain circumstances than would be desirable

- Transition costs moving from one monitoring scheme to another may be high

Option 2: Retain basic framework; make regulatory fixes identified in the problem statements and specific issues on an ad hoc basis.

Description: Under this option, the basic structure of the Standardized Monitoring Framework would be retained. Problems of flexibility, efficiency, insufficient information, timing, and use of past data would be addressed through specific fixes recommended in the options to the other issues in this package.

Advantages - Many of the most annoying problems are likely to be addressed

- Disruption of existing State and PWS programs would be minimized

- Changes could likely be made quickly, without great expenditure of resources, and without great opposition

Disadvantages - Opportunities for major improvements may be overlooked

- Inconsistencies and inefficiencies are likely to be retained

- The program would still be very complex and difficult to understand

Option 3: Retain Standardized Monitoring Framework structure with or without ad hoc regulatory fixes but move waiver requirements out of the regulations and into guidance.

Description: This option would build on Option 1 or Option 2 by improving the Standardized Monitoring Framework. However, it would go further by allowing States total flexibility in waiver decisions. EPA could issue guidance on factors which could be considered in making waiver decisions, but States would have the ultimate authority to determine on what basis to grant waivers.

Advantages - Problems with monitoring requirements would be improved through specific fixes

- Monitoring requirements for specific contaminants would be consistent throughout the country

- States would be able to grant waivers based on unique situations in their States, taking advantage of other programs

Disadvantages - While State conditions vary, they are not totally unique; inconsistencies could arise in the way different States treat the same contaminant

- The monitoring program would still be complex and difficult to understand

- Opportunities for major improvements in the monitoring program may be overlooked

- Some States don't have the resources to develop a unique program

Option 4: Abolish the Standardized Monitoring Framework, including waiver requirements, but require States to submit a monitoring/waiver plan for EPA approval.

Description: Under this option, States would design their own monitoring/waiver program for each contaminant as it becomes regulated. They would then submit the program to EPA for approval as a primacy requirement for adoption of each regulation. A variation of this option is that EPA could require a minimal amount of monitoring (e.g., once every five years) in addition to the State plan.

Advantages - Would provide States total flexibility to design a waiver and monitoring program which takes advantages of other programs/ information in their State

- States would have the opportunity to focus resources on those systems/contaminants with greatest risk potential

- EPA approval of the waiver program assures some level of national consistency

- The guidance which EPA uses to approve programs can be revised more easily than regulations; thus, improvements can be incorporated more quickly than if programs were mandated through Federal regulation

- With the variation, some national consistency in monitoring would be retained

Disadvantages - National inconsistency, or perception of inconsistency, could result in significant opposition, therefore delaying its adoption

- High transition costs to make such a significant departure from the current system

- Could actually result in higher resource expenditure for States to prepare the plan and EPA to approve it, and a longer time to get State plans and regulations in place (perhaps even longer than the extension period allows), than the current monitoring/waiver system

Option 5: Abolish the Standardized Monitoring Framework. Have no Federally-mandated monitoring requirements.

Description: Under this option, the regulations would be amended to delete all monitoring requirements. EPA would set the MCL and let the States design the monitoring program, without EPA approval.

Advantages - States would have total flexibility to design a program unique to their circumstances

- There would be no transaction costs in obtaining EPA approval for the plan

- States would have the opportunity to focus on those systems/contaminants with the greatest risk potential

Disadvantages - National inconsistency, or perception of inconsistency, could result in significant opposition, therefore delaying its adoption

- EPA would have no means of introducing consistency if inconsistency were a major problem

- EPA would have no leverage to correct inadequacies in a State's program short of a major confrontation

- Some States don't have the resources to develop their own unique program

Flexibility

Issue 1: *Give States discretion to grant waivers when warranted, and not just for susceptibility and use reasons; give States more discretion in granting susceptibility and use waivers.*

Option 1: Status quo

Option 2: Regulatory language should be structured to include only the minimum requirements of any condition. Option should be included for States to determine lesser or more stringent requirements based upon site specific conditions. (In the case of waivers, this could include county, State or even regional waiver areas.) At the same time as regulation proposal, clear guidance should be distributed to the States regarding the options which would be acceptable to EPA, with final negotiation of compliance particulars left between the State and the Region.

While the goal of uniform quality in drinking water is good and should be taken to heart, the geographic and other differences which occur throughout the country should be recognized so that specific contaminants or groups of contaminants could be waived, based upon State and Regional concurrence. Attempting to include all the possibilities and probabilities will always be impossible, but guidance and agreement between States and Regions should keep the programs in some sort of comparable parallel nationwide.

Option 3: Eliminate waiver requirements from the regulation and place in guidance (see Generic Issue option 3).

Option 4: Allow States to waive initial monitoring for VOCs.

The regulations currently allow waivers for initial monitoring for SOCs but not VOCs. The regulations could provide criteria for granting waivers for VOCs, consistent with the type of guidance provided for granting waivers for SOCs.

Option 5: To reduce State overhead, allow systems to submit waivers (under certain well-defined criteria) that become automatic unless the State disapproves. This waiver remains in force until the State rescinds it or it expires, whichever comes first.

Flexibility (cont'd)

Issue 2: *Greater State flexibility in monitoring requirements would give water systems more source and treatment options and support the use of alternative technologies.*

DESIRED STATE: Greater flexibility in the implementation of monitoring requirements which give water systems more source and treatment options and support the use of alternative technologies.

REGULATION REQUIREMENTS: Currently the regulations establish minimum monitoring requirements and sampling locations (generally source based sampling). The regulations do not support "point of use" or "point of entry" monitoring or treatment technologies. Section 141.100 Criteria and procedures for public water systems using point-of-entry devices, outlines the conditions under which alternative technologies may be used. In most cases they are restricted to those circumstances when they are the only means of meeting MCLs. The criteria and restrictions described in subsections (a) through (e) place significant burdens and costs on any system (or State) considering their use. There is no option in the existing regulation for States to modify, adapt or develop alternative requirements for small water systems that have very unique and therefore problematic sources (roof catchments, seasonal supplies, artificially stored supplies, emergency or remote systems).

Option 1: Status quo

Option 2: Develop EPA guidance on alternative treatments and related small source problems. EPA regions work with states to expand existing flexibility to authorize alternative monitoring and treatment requirements. Do nothing to change the existing regulation. States treat unique sources on a case-by-case basis subject to EPA approval. Scope of the problem may be regional. EPA could then direct resources to those regions and States that have unique source problems and allow them to develop appropriate response. (This option is effectively the status quo with the addition of the EPA guidance.)

Option 3: Include in section 141.100 language that would allow States to develop as a part of their primacy package, a generic program for alternative system management of unique sources. This would include the ability to establish alternative sampling locations, parameters, and frequencies that reflect the unique nature of the sources. For seasonal supplies, the alterations of the monitoring schedule may be to shift from 4 consecutive quarters to only sampling during use period for a year. For transient and remote supplies, treatment and sampling may be point of use. Section 142. subpart C, State Issued Variances and Exemptions, could be expanded to include provisions for unique sources that would apply not just to MCLs but also cover the modification of monitoring requirements.

Flexibility (cont'd)

Option 4: Revise regulation to give individual States the direct authority to make decisions, and modify requirements related to unique sources and appropriate treatment and alternative technologies on a case by case basis. This option would not require prior approval from EPA for these decisions.

Issue 3: *Monitoring requirements should consider local conditions relating to ground and surface water.*

REGULATION REQUIREMENTS: Monitoring requirements for VOC in Paragraph 141.4(f)(11)(iii) requires systems which are monitoring annually to monitor during the quarter which had the previous highest result. This requirement is consistent with nitrate 141.3(d)(5), nitrites 141.3(e)(4) and SOCs 141.24(h)(7)(iii). However, regulations provide for systems to monitor at the time designated by the State during each compliance period (141.23(j)) and have provision for subsequent samples to be collected at the same or other points which may be more representative of the sources (141.24(f)(1) and 141.23(h)(1)).

Option 1: Status quo

Option 2: Headquarters could provide guidance to regional EPA offices and States which indicate that monitoring for chemical contaminants should occur during conditions which would yield the highest expected result. This monitoring will take place in the quarter which previously yielded the highest results, during the portion of the year with climatic conditions which would expect to increase the normal level, or during a time period based on laboratory and monitoring availability if previous results indicated the contaminant level was reliably and consistently below the MCL.

Option 3: Modify regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), 141.24(h)(7) by deleting language which indicates that annual monitoring must be conducted during the quarter that previously yielded the highest analytical results and substituting language which would require that monitoring be conducted during periods of highest suspected vulnerability.

Option 4: Modify regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), 141.24(h)(7) by deleting language which indicates that annual monitoring must be conducted during the quarter that previously yielded the highest analytical results. Substitute language which gives states the authority to allow systems to coordinate the timing of sampling of multiple contaminants, even if the time chosen is not expected to represent the highest point of vulnerability for each contaminant.

Option 5: Modify existing regulations to expand the State's authority to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. Allow the States the authority and latitude to modify (subject to EPA review) base frequencies based on unique source or use conditions. Section 141.23(a)(4) would read "The State may reduce or modify the total number of samples taken or the timing of sample collection in order to reflect unique source and/or use conditions." Modify the monitoring frequencies established in 141.23(b),(c),(d), and (e) to reflect this change.

Issue 4: *The requirements to take four consecutive quarterly samples for regulated synthetic organic chemicals (SOCs) during the initial compliance period are unnecessarily excessive.*

REGULATION REQUIREMENTS: The regulations at 40 Code of Federal Regulations (CFR) 141.24(h)(4)(1) require CWSs and NTNCWSs to take four consecutive quarterly samples for SOCs during the initial compliance period (January 1, 1993 to December 31, 1995). Data collected after January 1, 1990 can be used to satisfy initial base sampling requirements for SOCs and unregulated organic chemicals. Systems with waivers are not required to sample for SOCs while the waiver is in effect (one compliance period). Waivers from the initial monitoring requirements, without additional sampling, are allowed.

Option 1: Status quo

Option 2: Accomplish by regulatory change: Non-detects after one quarter of monitoring for regulated SOCs and unregulated organic contaminants should serve as the basis for waiving the remaining quarters of the initial monitoring. Where vulnerability is expected to vary seasonally, samples should be scheduled during the time of the highest vulnerability.

Option 3: Accomplish by regulatory change: Same as 1, except that initial monitoring is completed after two consecutive quarters of monitoring.

Option 4: Go further back in time to allow grandfathering of additional data. Analytical methodology should be consistent with Phase II/V methodology.

Option 5: Accomplish by regulatory change: Base monitoring on whether the system is "suspected" to be vulnerable. Surface water systems (SWSs), ground water systems (GWSs) which have been determined to be ground water under the influence of surface water (GWUI), systems with nitrate levels >5 mg/L, past detects of any organic chemicals, systems in proximity to leaking underground storage tanks, etc., should be required to take four consecutive quarterly samples. Systems not in these categories would take 1 or 2 samples in the initial monitoring period.

Option 6: Re-evaluation and re-certification of waivers should be minimized so that implementation and recordkeeping are not a burden. One sampling event every 9 years, or when the State determines conditions have changed (e.g., on the basis of a sanitary survey), should be sufficient.

Option 7: One quarter (highest vulnerability) of initial monitoring should be required. If there are no detects, continue with annual monitoring, but in a different quarter (e.g., winter or fall). Over a 4-year period, each quarter's variation would be known.

Flexibility (cont'd)

Option 8: Baseline monitoring for GWSs should be 2 annual samples every 3 years rather than four quarterly samples. This will simplify management and tracking of schedules. Quarterly monitoring should be triggered when a detect is >50% of the maximum contaminant level (MCL). (Quarterly sampling versus annual sampling requires an order of magnitude increase in the work effort to manage the schedules.)

Option 9: Keep sampling requirements the same for CWSs, but NTNCWSs should only take 1 sample during the quarter of highest vulnerability.

Issue 5: *Surface water requirements should be flexible enough to allow for different flow conditions.*

PROBLEM STATEMENT: Surface water monitoring requirement adjustments based on flow conditions. {Consecutive quarterly sampling for these unique systems are not warranted nor are they representative of conditions encountered by the consumer (seasonal use and storage, intermittent flow conditions etc).}

DESIRED STATE: States have the freedom of adjusting monitoring requirements to reflect changing flow conditions (or use conditions).

REGULATION REQUIREMENTS: Regulations call for PWSs with surface sources to sample for various contaminants with a schedule that may or may not (due to flow conditions) detect actual contamination. The current regulations establish base monitoring frequencies for both ground and surface waters. The States have the option to establish additional monitoring. The ability to reduce sampling frequency is currently only available through vulnerability waivers or through compositing. Base monitoring frequencies are found in the following sections: Inorganic - 141.23(b),(c),(d),(e) and Organic - 141.24(a),(b),(c),(d) and (h).

Section 141.24(f) establishes the basis for reducing monitoring after the initial monitoring period due to water quality or waivers. However this section does not address unique source and use conditions. The problem statement refers to surface water but similar conditions will arise or seasonal ground waters, secondary or temporary supplies, and or locally unique collection distribution system. Strict interpretation of the base monitoring requirements (4 consecutive quarters regardless of use?) may produce data that does not reflect drinking water conditions. Averaging of results do not improve the assessment.

Option 1: Make no changes to existing regulation.

Option 2: Modify existing regulations to expand the State's authority to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. Allow the States the authority and latitude to modify (subject to EPA review) base frequencies based on unique source or use conditions. This section could parallel the construction of the sections on compositing: 141.23 (a)(4?) "The State may reduce or modify the total number of samples taken or the timing of sample collection in order to reflect unique source and/or use conditions". This change would render the monitoring frequencies currently established in 141.23 (b),(c),(d),(e) inaccurate.

Similar wording would have to be added to section 141.24. This type of change might also fit under 141.40 (Special monitoring requirements for inorganic and organic contaminants).

Flexibility (cont'd)

Option 3: Drop minimum monitoring frequency requirements. Include provisions in each section establishing base frequencies as general guidelines. The State, as a part of its primacy package, must include their own standard monitoring protocols. With this flexibility the States would then identify groups of water systems that require specialized monitoring conditions and present them to EPA for approval as a part of their overall primacy package. If a State's plan differed significantly from the guidelines the burden of proof would fall to the State to justify the differences. If a State chose not to develop a special conditions policy, the monitoring frequency guidelines would then become the standard.

Option 4: Modify the existing regulation to remove the requirement of 4 consecutive quarterly samples and allow States to establish alternative schedules that reflect flow conditions but maintain the minimum number of samples of 4. This would allow States to target sampling to the period of highest suspected susceptibility when flow or source conditions may make consecutive quarterly sampling less representative of the systems vulnerability. Example: A State may wish to target sampling for a surface water source to a 6 month period. That period may reflect the maximum period of vulnerability or exposure for that contaminant. Four consecutive quarterly samples may in fact mask the contaminant concentration in the source. This option would allow States to drop the consecutive requirement but would still require a minimum of 4 samples during the 6 month sampling window.

Issue 6: *The current regulations do not reflect the unique implementation problems (e.g., seasonal operation, intermittent well use) associated with transient non-community water systems (TNCWS) and non-transient non-community water systems (NTNCWS). TNCWS and NTNCWS often do not have the financial resources required to meet their regulations. TNCWS and NTNCWS have high noncompliance rates.*

REGULATION REQUIREMENTS: The regulations at 40 CFR 141.23(f)(i)(1), compliance calculations for inorganic chemicals (IOCs), require that compliance for systems which monitor at a frequency greater than annual is determined by a running annual average at any sampling point. If the initial or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. For systems which monitor annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the maximum contaminant level (MCL). Compliance calculations for volatile organic chemicals (VOCs), found at §§141.24(f)(15)(i) and (ii), and compliance calculations for synthetic organic chemicals (SOCs) found at §§141.24(h)(11)(i) and (ii) contain essentially the same requirements.

Under the Phase II/V regulations, NTNCWS monitor the same as community water systems (CWSs). TNCWSs must monitor annually for nitrate (§141.23(d)(4)), nitrite (§141.23(e)) and must meet the MCLs for nitrate, nitrite and combined nitrate/nitrite (§141.62(b)).

Option 1: Status quo

Option 2: NCWSs need to be educated about their regulatory requirements. They are usually not members of the American Water Works Association (AWWA) or the Rural Water Association (RWA). An outreach program is required.

Option 3: The frequency of sampling should correspond to the period of highest vulnerability. Compliance calculations for seasonal NCWSs should be calculated as the average over the period the system is in operation. If the initial or a subsequent sample would cause the seasonal average to be exceeded, then the system would be out of compliance immediately.

Option 4: The quarterly monitoring requirement is not representative. Samples should be taken at the well (since there is little or no distribution system, *per se*), once during the operating season. State discretion should provide for a more stringent schedule when high potential for contamination exists.

Option 5: Seasonal systems should sample in the quarters the system is in operation.

Option 6: NTNCWSs should only have to monitor for acute contaminants.

Option 7: NTNCWSs should only have to take one sample per compliance period.

Flexibility (cont'd)

Option 8: Waiver requirements for NTNCWSs should be made easier.

Option 9: Alternative methods, e.g., triazine screen for SOCs, should be used to target sampling.

Issue 7: *Allow flexibility for nitrate monitoring.*

REGULATION REQUIREMENTS: Monitoring requirements for nitrates are found in Paragraph 141.23(d). Monitoring is required at a minimum annual frequency and there is no provision for a reduction in monitoring frequency if nitrates are not detected. Monitoring is required quarterly if results are equal to or greater than 50% of the MCL. Monitoring may be reduced to annually after four quarters if a groundwater is less than the MCL or a surface water is less than 50% of the MCL.

Option 1: Status quo

Option 2: Modify regulation 141.23(d) to allow a reduction in sampling to once each three years if monitoring conducted prior to December 31, 1992, was consistently below 50% of the MCL. In addition, allow for a reduction in sampling frequency to once each three years if three consecutive annual samples do not detect nitrates.

Option 3: Modify regulation 141.23(d) to allow a reduction in sampling frequency to once each three years if multi-year sampling shows a source to be reliably and consistently below the MCL.

Option 4: Allow use susceptibility waivers for nitrates based upon past monitoring.

Option 5: Allow integration of nitrate monitoring requirements with other inorganic chemical triennial sampling based upon multi-year data which shows a consistent trend below 50% of the MCL.

Efficiency

Issue 1: *VOC and SOC initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. VOC and SOC repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.*

REGULATION REQUIREMENTS: Monitoring requirements for VOCs are found in Paragraph 141.24(f) and for SOCs are found in 141.24(h). VOC monitoring is required quarterly at each entry point during the first compliance period but may be reduced to annually if there are no detects of VOCs after four consecutive quarters. After three years of annual samples with no detects, monitoring may be further reduced to once each three years for ground water systems. SOC monitoring is required quarterly at each entry point. If there are no detects of SOCs after four consecutive quarters, then systems serving more than 3300 people may reduce monitoring to two quarterly samples in one year in each three year compliance period and systems serving 3300 or less may reduce monitoring to one sample each three years.

Repeat monitoring requirements when contaminants are not detected for VOCs are found in Paragraph 141.25(f)(5) and for SOCs are found in Paragraph 141.24(h)(4)(ii) and (iii). In general, repeat monitoring is required annually with provisions for further reductions or waiver applications after three years. Repeat monitoring requirements when contaminants are detected for VOCs are found in Paragraph 141.24(f)(11) and for SOCs are found in Paragraph 141.24(h)(7). In general, these repeat monitoring requirements provide for quarterly monitoring which may be reduced to an annual sample if the contaminant is reliably and consistently below the MCL. The reliably and consistently determination requires a minimum of two quarters of monitoring for groundwater and four quarters of monitoring for surface waters. After three consecutive annual samples with no detects, the system may apply for a waiver or monitoring may be further reduced.

Description: After a determination has been made that a system is vulnerable, there are three elements to be considered in setting initial and repeat monitoring requirements for VOCs and SOCs. The first element is the initial frequency of monitoring which includes the duration of this initial phase. Secondly, the trigger which allows a reduction in monitoring frequency or requires an increase in monitoring frequency must be considered. Finally, there is the repeat monitoring frequency which is based upon the trigger.

Efficiency (cont'd)

The issue is that the existing regulations should be simplified. Within each of the three elements there are a range of options as illustrated in the following table:

INITIAL MONITORING	TRIGGER	REPEAT MONITORING (< TRIGGER)
1 Sample SOC VOC Both	Detect at MDL	Annual Sample
	1/2 MDL	2 Samples/3 yrs
	MCL	1 Sample/3 yrs
2 Samples SOC VOC Both	Detect at PQL	1 Sample/6 yrs Sample frequency based upon source awareness
4 Samples SOC VOC Both		

To illustrate how these three elements may be used, the following table presents five possible combinations of initial and repeat monitoring frequency:

NO DETECTS
SYSTEM VULNERABLE

	1st Compliance Period		Subsequent Periods
	Initial	Next 2 Yrs	
Example 1	4 Samples	1 Sample/yr	1 Sample/3 yrs
Example 2	1 Sample	No samples	1 Sample/3 yrs
Example 3	1 Sample	1 Sample/yr	1 Sample/3 yrs
Example 4	2 Samples (non sequential qtrs)	No samples	1 Sample/3 yrs
Example 5	1 Sample	No samples	State option based on source awareness

All of these examples assume that the system is vulnerable and has monitored initially with no detections for VOCs and/or SOCs at the MDL.

Efficiency (cont'd)

Issue 2: *Reduce the cost and effort required to grant monitoring waivers for inorganic contaminants by allowing automatic reduction of sampling frequencies for IOCs.*

Option 1: Status quo

Option 2: Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 20% of the MCL, there are a minimum of three data points, and the most recent sample results are less than three years old.

Option 3: Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 50% of the MCL, there are a minimum of five data points, and the most recent sample results are less than three years old.

Option 4: Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if they meet the requirements of either option 2 or option 3.

Issue 3: *The volatile organic chemical (VOC) requirements for small systems (≤3,300 population) should be reduced. These systems took four samples in 1991.*

REGULATION REQUIREMENTS: The VOC monitoring and waiver requirements found at 40 CFR 141.24(f) apply to community water systems (CWSs) and non-transient non-community water systems (NTNCWSs). They do not make a distinction between systems based on population served.

Option 1: Status quo

Option 2: Keep the Standardized Monitoring Framework (SMF) but simplify the monitoring and waiver requirements for VOCs.

Utilize existing data (grandfathering) and initial monitoring as a screen (**CHART A**). Systems with no detects should monitor at frequencies based on (1) the level of review undertaken by the State, and (2) the population served (systems serving populations >3,300 and systems serving populations ≤3,300). Based on the level of review, systems would be categorized as "vulnerable" (no state review other than monitoring), "non-vulnerable" (some review), and "full waiver" (as described by §141.24 (f)(8)). The criteria for differentiating between a "non-vulnerable" and "full waiver" system are given in **CHART B**. "Full waivers" would be required for systems serving populations >3,300, but not for systems serving populations of ≤3,300. Reduced monitoring for systems serving populations of ≤3,300 would be established by rule (essentially the "waiver by rule"); the frequency would be the same as that under a "full waiver", i.e., once every six years. The "waiver by rule" would require some review by the State, addressing previous analytical results and how well the source is protected.

Systems with VOC detects would monitor quarterly until reliably and consistently below the maximum contaminant level (MCL), after which monitoring would be reduced to annual. Systems of both sizes (>3,300 and ≤3,300) would then qualify for waivers as before, or, alternatively, systems serving populations of ≤3,300 would be required to apply for full waivers.

Option 3: Repeat monitoring requirements for small systems should be reduced from annual sampling to one sample every three years.

Option 4: Systems serving populations <500 with no detects of any VOCs in the initial monitoring would not be required to conduct any additional monitoring.

Option 5: Reduced VOC monitoring should not be limited to small systems. Extend the concept to all systems. Once every 3 years is adequate for any size system with no detects. We are not concerned with an acute health risk here.

Efficiency (cont'd)

Option 6: Systems which do not detect any unregulated VOCs in the initial Phase II or V sampling should never have to sample for these contaminants as regulated contaminants.

Option 7: The regulations for VOCs found at §141.24(f)(14) require follow-up within 14 days if a contaminant is detected in a composite sample. The 14-day response time is burdensome to States that make full use of compositing. The response time should be based on whether the amount detected exceeds a certain level. If the level in the composite is below that amount, then a state should would have more time (e.g., one year) to respond. Initial monitoring could then be in the first year, and follow-up in the second. We are not concerned with chronic contaminants here. This option would reduce the implementation burden on the states.

Option 8: Where quarterly sampling conducted prior to January 1, 1993, shows no detects, the VOC monitoring during the initial compliance period should be reduced to one sample every 3 years.

CHART A

PROPOSED REDUCED VOC & SOC MONITORING REQUIREMENTS

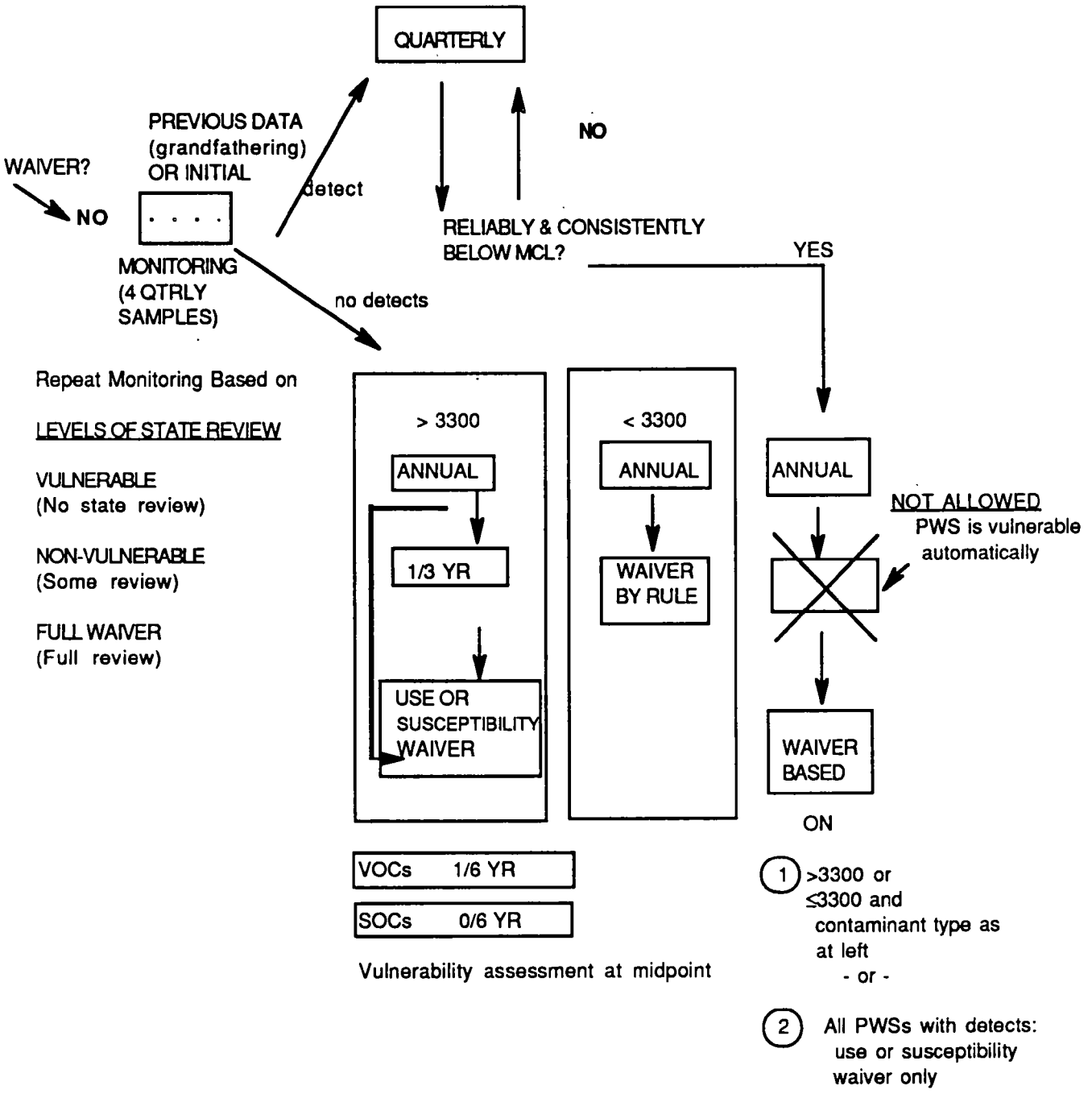

CHART B

CRITERIA FOR "NON-VULNERABLE" OR "FULL WAIVER"

FULL WAIVER CRITERIA:

VOCs

PREVIOUS ANALYTICAL RESULTS

PROXIMITY TO CONTAMINATION
ENV. PERSISTENCE
PERSONS SERVED
PROXIMITY TO LARGE PWSs

HOW WELL PROTECTED

SOCs

PREVIOUS ANALYTICAL RESULTS

PROXIMITY TO CONTAMINATION
ENV. PERSISTENCE

HOW WELL PROTECTED

ELEVATED NITRATE LEVELS

PCB USE

[ ] = VULNERABILITY ("NON-VULNERABLE") ASSESSMENT

Issue 4: *The synthetic organic chemical (SOC) sampling requirements for small systems (≤3,300 population) should be reduced. The reduced small system sampling for SOCs currently required is inequitable.*

REGULATION REQUIREMENTS: The SOC monitoring and waiver requirements found at 40 CFR 141.24(h) apply to community water systems (CWSs) and non-transient non-community water systems (NTNCWSs). They make a distinction between systems based on population served (>3,300 and ≤3,300).

Option 1: Status quo

Option 2: Same scheme as for volatile organic chemicals (VOCs, **CHART A**). Change current waiver duration from 3 years (§141.24(h)(5)) to 6 years to conform to that for VOCs.

Option 3: Systems serving populations <500 with no detects in the initial monitoring should not be required to conduct any additional monitoring.

Option 4: The baseline initial SOC sampling requirement for small systems (≤3,300 persons) should be one sample only. States should be allowed flexibility to use vulnerability to increase monitoring requirements to four samples, completely waive monitoring, or specify a time of year to sample.

Option 5: Return to the old concept of vulnerability: increase monitoring for vulnerable systems, not the other way around. Base monitoring on whether the system is "suspected" to be vulnerable. Surface water systems (SWSs), ground water systems (GWSs) which have been determined to be ground water under the influence of surface water (GWUI), systems with nitrate levels >5 mg/L, past detects of any organic chemicals, systems in proximity to leaking underground storage tanks, etc., should be required to take four consecutive quarterly samples.

Option 6: Reduced SOC monitoring should not be limited to small systems. Extend the concept to all systems. Once every 3-6 years is adequate for any size system with no detects. We are not concerned with an acute health risk here. Contamination is not likely.

Option 7: Systems which do not detect any unregulated SOCs in the initial Phase II or V sampling should never have to sample for these contaminants as regulated contaminants.

Option 8: The regulations for SOCs found at §141.24(g)(7) require follow-up within 14 days if a contaminant is detected in a composite sample. The 14-day response time is burdensome to States that make full use of compositing. The response time should be based on whether the amount detected exceeds a certain level. If the level in the composite is below that amount, then a state should have

more time (e.g., one year) to respond. Initial monitoring could be in the first year, and follow-up in the second. We are not concerned with chronic contaminants here. This option would reduce the implementation burden on the States.

Option 9: Phase V delayed SOC monitoring for systems with <150 service connections. Change the rule to delay all Phase II SOC monitoring for these systems as well. The regulations should be changed so that systems with <150 service connections wouldn't have to monitor until January 1, 1996. This would reduce the implementation burden on the States, for example, 60% of the systems in one State have <150 service connections. Since the regulation cannot be promulgated for several years, EPA should provide interim guidance allowing this option.

Option 10: The initial and repeat SOC sampling for small systems (systems serving populations of $\leq 3,300$) should be one sample per entry point every 3 years.

Grandfathering Data

Issue: *VOC sampling conducted before January, 1993, which included all regulated and non-regulated VOCs and which did not have any detections of these contaminants should be allowed to be used as basis for reducing VOC sampling. (I.10 and I.18)*

REGULATION REQUIREMENTS: Monitoring requirements for VOCs are found in Paragraph 141.24(f). If initial monitoring for all regulated and unregulated VOCs was completed by December 31, 1992, and no VOCs were detected, then monitoring is required annually in the 1993 through 1995 compliance period before a reduction in sampling frequency to once each three years may be granted.

Option 1: No change is needed because current regulations allow waivers after initial sampling has been satisfied (either by four quarterly samples after 1993 or by one grandfathered sample before 1993).

Option 2: Modify regulation 141.24(f) to allow for sampling VOCs once each three years if there are no detections in the first round of sampling which included all regulated and unregulated VOCs and which may have been completed by December 31, 1992, or which may be completed subsequent to that time for a new system or new source.

Timing

Issue: *Consolidate Phase V monitoring with initial Phase II monitoring; focus on systems with less than 150 service connections.*

Option 1: Status quo

Option 2: Provision should be made to allow existing systems to take the initial quarterly sample for Phase II, IIb, and V; if no detect occurs, the State should have the option to permit the PWS to continue all monitoring at the current reduced level, based on analytical results from monitoring conducted under Phase I, II or V (keeping Phase VIb in mind). This will help States and supplies cope with the laboratory capacity program, prevent a return to quarterly monitoring each time a new regulation package is promulgated and yet identify the presence of any contaminant through past monitoring by including unregulated contaminant monitoring as a "grandfather-able" sample. Clear guidance should be provided to the State outlining the provisions acceptable to U.S. EPA, such as the vulnerability of the system, past monitoring results, site specific conditions and contaminant specific considerations, with final negotiation of compliance particulars left between the State and the Region.

Option 3: Defer initial compliance sampling for Phase II systems serving >150 population until 1996 to eliminate the problem of duplicative monitoring due to existing schedules. This will eliminate the duplicative sampling problem in Phases II and V, but will not address any future rulemaking schedule problems. (Past monitoring data which showed any detect may well have been investigated; when this is the case, public health is not potentially jeopardized by the delay.)

Option 4: Do Options 1 & 2 together to address the problem for future regulations while providing immediate relief for small systems.

Lack of current information available to implement regulations

Issue 1: *Acrylamide and epichlorohydrin treatment technique requirements are unclear and the manufacturing information necessary to implement them are unavailable.*

Description: Section 141.111 requires water systems which are using treatment chemicals containing these contaminants to provide an annual certification in writing to the State that the dose is not exceeding certain levels.

Option 1: Status quo

Option 2: Develop headquarters guidance which would include: (1) a product listing, including manufacturers for all water treatment chemicals which contain acrylamide and epichlorohydrin, (2) health effects data in layman terms which will allow water system personnel to understand the basis for regulating the dosages of water treatment chemicals containing these contaminants, (3) a simple form which could be used by water systems to obtain certification from their chemical supplier that the regulations were being met, and (4) in the interim, issue enforcement guidance which would allow States to delay implementation.

Option 3: Delete paragraph 141.111. Request NSF and other water treatment chemical certifying groups to include evaluation of acrylamide and epichlorohydrin content in the product approval process.

Issue 2: *Need to provide States technical information and support documents for each contaminant (fate and transport, likely sources, etc.).*

Description: State regulatory agencies should be provided with clear, concise information regarding short term and long term exposure, health effects, potential sources of contribution of the contaminant, known occurrences or areas of the U.S. in which the contaminant has been identified in drinking water, characteristics of the contaminant which may affect its migration and treatment, BAT, chemical or physical characteristics, and other important information which will allow State programs to properly evaluate the importance, treatment, and potential for waivers for such contaminants.

Option 1: Status quo

Option 2: EPA Headquarters should develop one page fact sheets on each contaminant (regulated and unregulated) to include occurrence data, persistence, health effects, and treatment process that is covered by Drinking Water Regulations. These fact sheets should be updated as additional information, including analytical methods, become available.

Option 3: EPA should provide technical training to State staff regarding the significance of drinking water contaminants which are regulated.

Option 4: Existing health advisories for regulated contaminants should be revised and republished in a format understandable by the general public. Additional health effects bulletins should be developed to address all drinking water contaminants which are regulated.

Inconsistency

Issue 1: *Reconsidering the logic of allowing ground water systems to reduce monitoring when reliably and consistently below the MCL but surface water systems can only reduce monitoring when <50% of the MCL.*

PROBLEM: Currently the criteria for reducing nitrate monitoring frequency from quarterly to annual are not the same for ground and surface waters. The ground water threshold is "reliably and consistently <MCL." Surface waters however are required to continue monitoring until they are <50% MCL. There seems little reason to have two different threshold criteria. It also establishes a stricter standard for complying surface waters that may be excessive. The two different standards only adds to PWS confusion.

REGULATION REQUIREMENTS: Section 141.23 (d)(2) establishes the frequency for initial and repeat ground water sampling: "... the State may allow a groundwater system to reduce the sampling frequency to annually after 4 consecutive quarterly samples are reliably and consistently less than the MCL." Section 141.23(d)(3) establishes the requirements for surface waters: "...the State may allow a surface water system to reduce the sampling frequency to annually if all analytical results from four consecutive quarters are < **or** = 50 percent of the MCL."

Option 1: Status quo

Option 2: Parallel construction: Modify 141.23 (d)(3) to reflect the same wording as 142.23 (d)(2) {"reliably and consistently less than the MCL"}. This is consistent with the language provided in 141.23(e)(3) for nitrite monitoring frequency. This is also similar to the threshold established for reducing organic monitoring after detection and initial follow-up sampling. This synchronization would allow the Sates to develop a single policy on how it would determine when a source was "reliably and consistently less than an MCL".

OPTION 3: Parallel Construction: Modify 141.23 (d)(2) to reflect language in 141.23 (d)(3) {"less than 50 percent of MCL"}. This is consistent with the trigger that increases nitrate monitoring "greater than 50 percent of the MCL" which is for both ground and surface waters." In order to establish a uniform use of the threshold criteria, section 141.23(e)(3) should be changed likewise. This would set a uniform measure for nitrate and nitrite of " >50 percent of the MCL".

Inconsistency (cont'd)

Issue 2: *How can compositing be allowed for organic contaminants when repeat monitoring is triggered by detection at the MDL?*

PROBLEM: The procedure and definition for VOC and SOC sample compositing has been changed in Phase II, Phase IIB and has been further amended in Phase V. Compositing procedure is confusing and with the current definition of dubious analytical value.

REGULATION REQUIREMENTS: Phase II and V allows up to 5 SOC/VOC samples to be composited for large systems and for small separate systems. It is included as a means for the State to reduce the total number of samples a system must take. Detection at the MDL triggers follow-up monitoring in a composite sample under the amended rules. It is defined for VOC/SOCs in sections 141.24(f)(14) and again in 141.24(h)(10). It states:

> "The State may reduce the total number of samples ... the use of compositing. Composite samples from a maximum of five sampling points are allowed provided that the detection limit of the method used for analysis if less than 1/5 of the MCL."

Section 141.24(f)(14)(i) adds: (VOCs)

> "If the concentration in the composite sample is > or = to 0.00005 mg/l for any of the contaminants listed ... then follow-up samples must be taken ... from each sampling point included in the composite."

Section 141.24(h)(10) uses the listed detections limits for SOCs rather than the default of 0.0005 mg/l used with the VOCs.

The application of this method for organic contaminants has the following inconsistencies:

1) It allows for a 5 fold dilution of a sample against the original MDL. This effectively raises the repeat sampling trigger for composite samples up to five times the level used for a single sample. Two contaminated samples mixed with two clean would not show a detection under this scenario.

2) The procedure for compositing of VOCs raises the risk of sample error since it involves the recombination of potentially volatile sample in the lab.

Option 1: Make no changes to the regulation. Provide technical assistance to States and PWS in the form of guidance on which analytical methods can meet the MDL < 1/5(MCL) test. This would not address the issue of sample dilution. However, this method would allow a number of systems to composite samples and most likely avoid repeat sampling because of the effectively raised repeat monitoring trigger.

Option 2: Change the repeat sampling trigger for all organic contaminants to a higher level (perhaps PQL). This would then allow for an effective composite procedure that would define the composite repeat trigger as the PQL/# of

samples in the composite. This would maintain an equity between single and composite samples. The shift from the MDL to a higher trigger such as the PQL may be appropriate since the MDL is a laboratory limit and the PQL more closely represents a laboratory and regulatory standard. In general the PQL is between 5 and 10 times the MDL and represents the 95% confidence interval for detection. The current test that compositing can not be used if the MDL > 1/5(MCL) could be retained. It does remove the composite option when the MCL is close to the detection limit.

Option 3: Remove current detailed language on compositing for organic (and inorganic) compounds from the regulation. Add: "The State may reduce the total number of samples a system must take by allowing the use of compositing."
Along with a lab certification program the State can opt for compositing as outlined in its plan. As the regulation currently reads, compositing is a State option. With general guidelines from EPA, States could develop an approved method of compositing that makes sense analytically as well as economically. In the absence of such a State policy there would be no compositing for organic contaminants.

Option 4: Allow no sample compositing for organic contaminant monitoring. Maintain compositing for IOCs.

Option 5: Allow compositing for SOCs but not for VOCs for the reasons described above. Compositing for SOCs should be consistent with changes similar to those described in Option 2.

OPTIONS FOR MONITORING AND WAIVER ISSUES TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain the reasons in the comments area.
3. Please provide any additional comments in the space provided.

PART I: GENERIC ISSUE

OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	NO OPINION

COMMENTS:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

PART II: INDIVIDUAL ISSUES

[The range of available options are represented by the unshaded blocks.]

OPTIONS	1	2	3	4	5	6	7	8	9	10	NO OPINION	COMMENT ?
Flexibility 1												
Flexibility 2												
Flexibility 3												
Flexibility 4												
Flexibility 5												
Flexibility 6												
Flexibility 7												
Efficiency 1	Use Part III, Monitoring Options, Pages 36 & 37											
Efficiency 2												
Efficiency 3												
Efficiency 4												
Grandfather 1												
Timing 1												
Information 1												
Information 2												
Inconsistency 1												
Inconsistency 2												

COMMENTS: (Identify issue # for each comment. Make additional comments on back of tally sheet.)

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

PART III: MONITORING OPTIONS (Efficiency Option 1)

Mark the combination of monitoring options that best describes your preference. There is a separate table for each type of regulated contaminant. Remember this monitoring scenario assumes that sources subject to this monitoring are vulnerable and have not been waivered.

ELEMENTS	CONDITIONS					
Initial Sampling Frequency	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / 1 YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
IOCs						
Trigger Level	STATUS QUO	PQL	1/4 MCL	1/2 MCL	MCL	
IOCs						
Repeat Frequency < Trigger	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
IOCs						
Repeat Frequency > Trigger	STATUS QUO	1/6 MO	2 / YR	3 / YR	1 / YR	
IOCs						
Reliably & Consistently < MCL	STATUS QUO	1 SAMPLE	2 SAMPLES	3 SAMPLES	4 SAMPLES	VARIABLE (see footnote #2)
IOCs						

FOOTNOTES

1. Set individually for each sampling point, would be based on the risk on contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a state-wide vulnerability assessment for each contaminant.

2. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

ELEMENTS	CONDITIONS					
Initial Sampling Frequency	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / 1 YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
VOCs						
Trigger Level	STATUS QUO	PQL	1/4 MCL	1/2 MCL	MCL	
VOCs						
Repeat Frequency < Trigger	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
VOCs						
Repeat Frequency > Trigger	STATUS QUO	1/6 MO	2 / YR	3 / YR	1 / YR	
VOCs						
Reliably & Consistently < MCL	STATUS QUO	1 SAMPLE	2 SAMPLES	3 SAMPLES	4 SAMPLES	VARIABLE (see footnote #2)
VOCs						

FOOTNOTES

1. Set individually for each sampling point, would be based on the risk on contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a state-wide vulnerability assessment for each contaminant.

2. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

PART III: MONITORING OPTIONS (Efficiency Option 1) (cont'd)

ELEMENTS	CONDITIONS					
Initial Sampling Frequency	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / 1 YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
SOCs						
Trigger Level	STATUS QUO	PQL	1/4 MCL	1/2 MCL	MCL	
SOCs						
Repeat Frequency < Trigger	STATUS QUO	1 / 3 YRS	2 / 3 YRS	3 / 3 YRS	1 / YR	VULNERABILITY OF SAMPLING POINT (see footnote #1)
SOCs						
Repeat Frequency > Trigger	STATUS QUO	1/6 MO	2 / YR	3 / YR	1 / YR	
SOCs						
Reliably & Consistently < MCL	STATUS QUO	1 SAMPLE	2 SAMPLES	3 SAMPLES	4 SAMPLES	VARIABLE (see footnote #2)
SOCs						

FOOTNOTES

1. Set individually for each sampling point, would be based on the risk on contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a state-wide vulnerability assessment for each contaminant.

2. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

COMMENTS ON PART III:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

National Phase I/II/V Implementation Workgroup

November 12, 1992

Regulatory Reformatting Subgroup Report

Problem Statement: *The regulations are poorly organized, cryptic in expression and generally difficult to understand.*

Desired State: The structure should be organized and follow a hierarchial outline format. The presentation should be simple and the style of expression should be concise.

Option 1: Status quo, leave the format alone.

Option 2: Reorganize the regulations for Phases I, II, IIB and V according to a generic outline (see sample below). The goals are: centralization of common provisions *e.g.*, sampling point definitions; clear language; minimization of cross-referencing and effects on other regulations *e.g.*, radionuclides; and the inclusion of a template for cross-walks.

Option 3: Reorganization all of Part 141 (Radionuclides, Disinfection By-Products, etc.).

Option 4: In addition to any option above, provide a locational index, as a supplement to the regulations, for finding any of the basic requirements for IOCs, SOCs and VOCs, *i.e.*...initial monitoring requirements, grandfathering provisions, trigger levels, repeat monitoring, MCLs, BATs, etc.

SAMPLE OUTLINE

a. MCL or Treatment Technique.
b. Best Available Technologies (BATs).
c. Monitoring: explain initial monitoring and grandfathering, trigger levels and repeat monitoring.
d. Waivers: explain term of waiver, minimum sampling and criteria.
e. Analytical Methods & Criteria.

REGULATORY REFORMATTING TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain your reason(s) in the comments area.
3. Please provide any additional comments in the space provided.

Since Option #2 involves a relatively short time frame and Option #3 entails several years, they are not mutually exclusive and you may indicate a preference for both. Since Option #4 does not rely on implementation of any of the other options, you may select that option in addition to any others for which you indicate a preference.

OPTION #1	OPTION #2	OPTION #3	OPTION #4

COMMENTS:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

Technical Transfer Strategy for Drinking Water Sampling Waivers

ISSUE: *States need additional information regarding their options for designing sampling waiver programs.*

OPTION 1: Status quo - the national guidance signed and distributed to the Regional Offices on September 11, 1992, along with the Region V Guidance that was attached to it, are sufficient.

OPTION 2: To the national guidance cited above, add general clarifications for State waiver program strategies to the Consolidated Rule Summary, which is near completion, and provide additional clarifications through a Q&A document based on specific State and Regional Office questions.

OPTION 3: Prepare written abstracts of approved waiver program descriptions and distribute these to all States and Regional Offices with complete copies of each approved program. An initial batch of approved programs should be available in the first quarter of 1993.

OPTION 4: Conduct technical transfer workshops during the first six months of 1993. These will include panel discussions of alternative state waiver strategies and State Wellhead Protection Programs, and may include panel discussions of Comprehensive State Ground Water Protection Programs (CSGWPPs) or State Watershed Management Programs. The scope of each workshop will depend on the interests and capacity of the host State or Region.

OPTION 5: Combine Options 2,3 and 4.

TECHNICAL TRANSFER & MONITORING WAIVERS TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain your reason(s) in the comments area.
3. Please provide any additional comments in the space provided.

Since Options #2, #3 and #4 are not mutually exclusive, you may pick any two of them, if you don't like Option #5.

OPTION #1	OPTION #2	OPTION #3	OPTION #4	OPTION #5

COMMENTS:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

National Phase I/II/V Implementation Workgroup

November 12, 1992

UNREGULATED CONTAMINANT MONITORING

The following discussion of the unregulated contaminant monitoring program is a summary of the issues and problems that the workgroup identified at its first meeting in September. Key issues brought to the workgroup in September covered a broad spectrum ranging from the requirements for analytical methods, to general questions concerning the scope and purpose of the unregulated contaminant monitoring program. Specific issues included: methods to reduce monitoring impacts on certain water systems, the phasing of unregulated contaminants into regulated, waivers, repeat monitoring requirements, and questions concerning specific unregulated contaminants. Many of the comments and issues raised fundamental questions concerning the structure, need, and process that currently drives the unregulated monitoring program under the SDWA. For the work of the subgroup, the following problem statement, its current status, impact and desired state, provides the best overall focus for the discussion of possible changes and options to the unregulated contaminant monitoring under Phases I/II/V.

PROBLEM STATEMENT:

Current Status: *The unregulated contaminant monitoring program yields more data than are needed to determine whether those contaminants warrant federal regulation.*

Impact of Problem: Some public water systems are spending scarce funds needlessly.

DESIRED STATE: An unregulated contaminant monitoring program which yields only the needed amount of data and thus reduces costs to systems.

The workgroup found general confusion concerning the current requirements for unregulated contaminant monitoring under Phase I/II/V. A close review of the regulations suggest that there are inconsistencies and contradictions between the SDWA and various phases of the regulations. This involves the requirements for repeat monitoring of VOCs and SOCs as well as the possible use of waivers with these contaminants. Most of the issues identified by the workgroup at the first meeting appear to require some type of regulatory change. In some cases, a statutory change may also be needed to implement the various options.

Statutory & Regulatory Requirements for Repeat Monitoring of the Unregulated Contaminants

At the present time, the requirements found in the various phases and the SDWA are not the same. This issue of consistency is significant and clearly has statutory implications. The inconsistencies focus on the requirements for repeat monitoring found in the SDWA and the individual phase I,II, and V monitoring requirements. This issue has been highlighted as a

separate issues relative to the options nd changes described in later in this discussion. Confusion over monitoring requirements between phases, between groups of substances and between the SDWA and the regulations needs to be looked at directly.

REGULATION REQUIREMENTS: The SDWA requires, in §14.45, unregulated contaminant monitoring every 5 years. The current information on Phase II/V does not identify this repeat requirement although there is nothing in either Phase II or V language that removes the requirement. The regulatory requirement can be found in CFR language in 141.40(l) (phase I). This 5 yr repeat monitoring requirement is at odds with the standard monitoring framework that has been incorporated into phase II/V.

The subgroup has identified 5 options that address this issue:

OPTION 1: Status quo

The requirement comes from the SDWA, therefore the statutory language should stand. The unregulated monitoring would remain outside of the standard monitoring framework, with a repeat cycle for vulnerable water systems of 5 years. This would have to be explained and clarified with guidance.

ADVANTAGES	DISADVANTAGES
No statue or regulatory changes required.	Inconsistent with sampling frequency with the Standard Monitoring Framework (SMF).
Maintains repeat monitoring requirement and SDWA intent.	Doesn't eliminate confusion on monitoring requirements.
	Inconsistent with SOC regulatory requirements.

Option 2: No change to regulation of statute or regulation but clarification on current requirements by EPA.

This option is similar to Option 1 but includes 2 additions. 1) EPA headquarters would prepare clear guidance on the purpose and requirements of the unregulated contaminant monitoring program that spans Phases I/II/V. 2) Until regulatory inconsistencies can be resolved EPA should issue, in the interim, enforcement guidance which would reduce the potential for repeat monitoring compliance violations for unregulated contaminants.

ADVANTAGES	DISADVANTAGES
No immediate statue or regulatory changes required.	Inconsistent with sampling frequency with the Standard Monitoring Framework (SMF).
Maintains repeat monitoring requirements and SDWA intent.	Does not resolve SDWA & regulatory inconsistencies.
Reduces confusion on unregulated monitoring through regulatory & enforcement guidance.	

OPTION 3: Modify statute and regulations.

The SDWA intent was for repeat monitoring. Amend both the statute and CFR to reflect repeat monitoring requirements but modify the timeline to conform with the standard monitoring framework compliance periods of 3,6,and 9 yrs.

ADVANTAGES	DISADVANTAGES
Maintains repeat monitoring requirements and SDWA intent.	Requires regulatory and statutory changes.
Reduces confusion on unregulated monitoring through regulatory consistency (SMF cycle 3,6,9 yrs).	Maintaining repeat monitoring requirements will increase sampling costs for some systems.
Simplify monitoring compliance tracking.	Doesn't resolve SDWA & regulatory inconsistencies.

OPTION 4: Drop repeat unregulated monitoring requirements from SDWA.

If the intent of the unregulated contaminant monitoring is to develop a database on exposure for future regulatory action, repeat monitoring may not be needed for all unregulated contaminants. If the requirement for repeat monitoring was dropped and only initial monitoring (at what ever frequency) was required, there would be no conflict with the standard monitoring framework.

ADVANTAGES	DISADVANTAGES
Reduces confusion on monitoring requirements by maintaining regulatory and statutory consistency.	No repeat monitoring requirements for unregulated contaminants.
Reduces monitoring costs.	May limit EPA's ability to make certain regulatory decisions if long term repeat information is required on certain unregulated contaminants.
	Requires statutory and regulatory changes.

OPTION 5: Drop SDWA statute requirements for unregulated contaminant monitoring.

Drop statutory language requiring all unregulated contaminant monitoring. Unregulated monitoring could then be a part of EPA regulatory package or removed altogether. This would allow EPA the latitude needed to develop an unregulated contaminant program under the phased regulations.

ADVANTAGES	DISADVANTAGES
Removes Statutory and regulatory inconsistency.	Statutory and/or regulatory changes required.
Increases EPA flexibility for design and modification of Unregulated contaminant monitoring program.	May limit EPA's ability to make certain regulatory decisions if sufficient information is unavailable.
Reduces long term monitoring costs.	May be perceived as weakening the SDWA.

Other Issues and Options for Unregulated Contaminant Monitoring

The remainder of the options developed by the subgroup deal with primarily regulatory changes (although in some cases statutory change may also be required). The options cover the spectrum of issues and responses from simple to complex. The options the subgroup developed, have been categorized by the mechanisms needed to facilitate the desired changes. These mechanisms include:

I) Regulatory change:
II) Expansion of the individual (system) waiver options,
III) Development of a permanent waiver (state option),
IV) Changes in analytical or monitoring requirements, and
V) Major modification or design of the unregulated contaminant monitoring program.

Some of the options identified can best be accommodated by changes made to other portions of the Phase II/V implementation program (i.e., standard monitoring framework, waiver guidance, and/or analytical/lab issues). Because of that some of the proposals may become redundant once decisions are made on other workgroup issues. Where possible those overlapping options and issues have been identified.

I. Regulatory Changes:

Option 1: Expand State Authority to Modify Monitoring Requirements Based On Unique Flow, Treatment, or Use Conditions

Current requirements listed in 141.40 (n) for 4 consecutive quarterly samples does not realistically apply to seasonal and secondary water supplies that are not (or can not) be used year round. The States needs latitude to modify or adapt (not merely add) monitoring requirements to reflect unique source, use, or treatment conditions. The regulation should be modified to explicitly provide that flexibility to the state where it is needed. {There are a number of options similar to this being discussed by the standard monitoring framework sub-group. Our sub-group would recommend changes for unregulated contaminant monitoring be constructed parallel to changes for the regulated compounds.}

ADVANTAGES	DISADVANTAGES
Removes unnecessary regulatory requirement (inappropriate monitoring locations or frequencies).	Removes simple national standard for unregulated contaminant data collection.
Increases State flexibility.	Inconsistencies between state approaches amy impact quality of EPA data.
Maintains consistency with possible changes to regulated contaminants.	Individual State approaches may have a significant impact on State resources.

Option 2: Remove waiver restriction on VOC contaminants.

Remove the restrictions on the use of waivers for unregulated VOCs. This would allow unregulated VOCs to be handled just like SOCs with system waivers granted by a State.

ADVANTAGES	DISADVANTAGES
Removes inconsistency between VOCs and SOCs.	Doesn't reflect differences between VOC and SOC occurrence and behavior.
Increases state flexibility.	May be seen as weakening the SDWA.
Reduces monitoring costs for non-vulnerable systems.	Requires statutory and regulatory change.

II. Expansion of System Waiver Options:

Option 1: Automatic Unregulated Waiver for Systems Waived from Regulated SOCs.

Tie unregulated waivers to regulated waivers. Provide an automatic waiver for systems that receive a waiver from the regulated SOCs due to vulnerability (susceptibility based). If a system detects a regulated compound or is considered vulnerable to regulated SOCs, then it would be required to monitor for unregulated contaminants (or apply directly for a waiver for unregulated contaminants).

ADVANTAGES	DISADVANTAGES
Simplify waiver process for States and systems.	Ignores differences between in fate, transport, and/or use between various VOCs and SOCs.
Reduces monitoring costs for low risk systems.	May generate less data for EPA, and may negatively impact EPA's ability to make regulatory decisions.
Increases State flexibility.	

Option 2: Expanded State Authority for System Waivers

Allow states greater latitude on monitoring requirements for unregulated compounds. Expand state authority on waivers for unregulated as well as regulated compounds. (Is quarterly necessary or should only vulnerable systems test?). {Any changes made here should be consistent with changes made in standard monitoring framework or under guidance developed for regulated compounds.}

ADVANTAGES	DISADVANTAGES
Target impact of unregulated monitoring program to most vulnerable systems (areas.)	Targeted information may skew data and impact EPA's ability to make needed regulatory decisions.
Reduce monitoring impact on low risk systems.	Skewed data will require EPA to develop alternative methods for comparing multi-state data.
Increases State flexibility.	Emphasis on Vulnerability may significantly State resources and available expertise.

III. Permanent Waivers (State Based):

Option 1: State based permanent waivers for unregulated contaminants.

Allow use, susceptibility, and/or regulated monitoring results to permanently waive (not system waiver) low risk water systems from unregulated monitoring. This would be a state option that would be granted, reviewed, or revoked at state discretion. State option and criteria would be developed as part of a State primacy package and subject to EPA review and approval.

ADVANTAGES	DISADVANTAGES
Reduce administrative and financial burden on States and water systems.	May require significant State resources to implement state program.
Increases State flexibility.	Expanded use of waivers may significantly reduce the quantity of data generated and affect EPA's ability to make decisions.
Simplify compliance monitoring tracking with automatic waivers for low risk systems.	Over time some of the unregulated contaminants may change to regulated. This may negatively impact grandfathering of data.

IV. Changes in Analytical or Monitoring Requirements:

Option 1: Limit types or sizes of systems required to monitor for unregulated contaminants.

(1) Raise the level of system size (from > 150 connections to < 3,300 pop) that is exempted from unregulated contaminant monitoring.

(2) Limit the unregulated contaminant monitoring program to larger community systems (remove NTNCs).

ADVANTAGES	DISADVANTAGES
Reduce the total number of systems that must sample.	Reduced or skewed data may impact EPA's ability to make needed regulatory decisions.
Reduce financial and administrative impact on States.	Systems excluded may represent a significant class of vulnerable systems.

Option 2: Restrict the list of unregulated compounds for which monitoring is required.

(1) Limit unregulated contaminant monitoring to those substances that are already covered by the analysis required for regulated contaminants.

(2) Limit unregulated contaminant monitoring to multiple analyte methods, (no single analyte methods - use only broad spectrum analysis techniques i.e.: 525.)

ADVANTAGES	DISADVANTAGES
Minimize financial impact on water systems while still collecting unregulated contaminant data.	EPA may not be able to generate the needed information for specific contaminants.
Occurrence data would still be collected for a large variety of systems.	Imposes an arbitrary (non risk) factor on unregulated monitoring requirements design.

Option 3: Reduce the level of quantification needed for unregulated contaminant monitoring.

Reduce level of quantification for unregulated contaminants and allow for lower cost qualitative analysis. Use PQL instead of MDL for unregulated contaminants or allow the use of alternative methods (CRCLA/RCRA or CWA methods that are more commonly available).

ADVANTAGES	DISADVANTAGES
Increase the number of potential methods of analysis.	Data collected may not be consistent among methods.
Reduces cost of monitoring through competition and alternative methods.	Higher detection limit may impact EPA's ability to use the data.
Increase state flexibility.	Some "hit" may be missed.

Option 4: Reduce monitoring frequency for unregulated contaminants.

Through regulatory change reduce monitoring frequency for unregulated contaminants to annual or 2 non consecutive quarters as opposed to 4 consecutive quarters.

ADVANTAGES	DISADVANTAGES
Reduce monitoring costs on water systems.	May not generate sufficient data for EPA.
Still provide multi-point data for contaminants.	May miss significant changes in occurrence or concentration for certain types of systems.
Still preserve some degree of seasonality in data.	Additional work load for state is scheduling is based on vulnerability.

Option 5: Remove contaminants from unregulated list (immediately) as they become regulated. Example: Drop any Phase II/V unregulated contaminant from the unregulated list since it will be regulated in Phase V. Defer quarterly monitoring until Phase V. Leave unchanged the unregulated list for those substances that are still being evaluated. The removal of listed compounds should occur immediately after promulgation in order to have a meaningful impact on existing regulations.

ADVANTAGES	DISADVANTAGES
Eliminate unnecessary sampling for unregulated contaminants are covered by up-coming regulation.	May have little effective impact on systems that coordinate multiple phases and their implementation.
Reduce sampling costs for systems.	

V. Major Modifications of Unregulated Monitoring Program

Option 1: State substitution of individual samples for quarterly system samples.

Allow individual states to develop state wide year round occurrence data using single quarter data collected from each water systems. This would provide and alternative to quarterly monitoring by systems. Each State could divide the water systems into three groups, as they must do now, one for each year of the compliance period. Then States can further divide each group into four groups, one for each quarter of the year. This will provide quarterly monitoring results, allowing us to look for seasonal fluctuations, but would only require each system to sample once.

ADVANTAGES	DISADVANTAGES
Reduce sampling costs for each system, Still produce state year round data set.	Data may not be correlative between different water systems.

Option 2: State Responsibility for Collection of Exposure and Occurrence Data.

Place the requirement for unregulated monitoring data on States and not on individual water systems. State would develop as a part of its primacy package a program for collecting needed occurrence data for EPA. State would have the authority and ability to develop its own program for data collection. This program may place the burden of data collection on all systems but it may also develop alternative approaches that would be subject to EPA approval. These alternatives may consider Pesticide Management Plans, alternative monitoring data already collected in the state, or a number of other options including contracting to a third part to develop the occurrence data set independently. State plans would be subject to EPA approval and based on EPA criteria and guidance.

ADVANTAGES	DISADVANTAGES
Increases State flexibility.	States may not have resources to develop this option.
Allows for development of alternative approaches for unregulated data collection.	Differences in State approaches may impact data compatibility between states.
May significantly reduce water systems costs.	Requires increased coordination between State, Water systems and EPA.

Option 3: Obtain Data through EPA Surveys

EPA could revoke the statutory provisions and regulations requiring systems to monitor for unregulated contaminants. Instead, EPA would design and conduct national surveys to provide the information needed to determine if specific contaminants should be regulated.

ADVANTAGES	DISADVANTAGES
Minimizes impact on States and water systems.	EPA does not have the resources to implement this option.
Collects only the data needed.	Requires statutory and regulatory change.

Option 4: EPA Identifies the Data It needs and PWSs Jointly Generate the Data

EPA would identify exactly what data points it needs to develop a national occurrence estimate. These data points would represent watersheds, surface water segments, or whatever locations and/or geological parameters are appropriate. Public water systems would then have the option of jointly funding the sampling and analysis applicable to their location (e.g., if three systems are served by the same watershed, they could generate a single data set and jointly pay for its development). This approach is similar to the Data Call-In requirements for pesticides, where chemical companies which have registered the same active ingredient collaborate on the development of data needed to support the registration of that active ingredient.

ADVANTAGES	DISADVANTAGES
Water systems pay only for the data needed.	Difficult coordination and administrative relationship between EPA and PWS.
Cost impact to states and systems reduced.	Requires statutory and regulatory change.

Option 5: Remove the unregulated monitoring requirement

Drop all unregulated monitoring requirements for water systems. EPA would have to find other mechanisms to collect or estimate exposure and or occurrence data for potentially regulated compounds. This option may be similar to Options V(C),(D), and (E), but it explicitly removes any system responsibility for monitoring under Phase II/V or the SDWA. This option would require both regulatory and statutory change. It would remove the burden from water systems but would not identify an alternative source of the desired information.

ADVANTAGES	DISADVANTAGES
Reduces costs to systems and States.	Requires statutory and regulatory change.
	Wouldn't provide unregulated contaminant data.

UNREGULATED CONTAMINANT MONITORING TALLY SHEET

This rating process is divided into two sections. Section 1 refers to the 5 options for statutory changes concerning repeat unregulated monitoring. Section 2 covers the individual options for changes in the unregulated contaminant monitoring program. These sections will be tallied independently.

SECTION 1: STATUTORY & REGULATORY REQUIREMENTS FOR REPEAT MONITORING OF UNREGULATED CONTAMINANTS

INSTRUCTIONS

1. Mark your preferred option with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain the reasons in the comments area. If you have no preference or no opinion on this set of options, please mark the appropriate section.
3. Please provide any additional comments in the space provided.

OPTION 1	OPTION 2	OPTION 3	OPTION 4	OPTION 5	NO OPINION

Comments:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

SECTION 2: INDIVIDUAL OPTIONS FOR CHANGES TO THE UNREGULATED CONTAMINANT MONITORING PROGRAM

INSTRUCTIONS

This is a multi-vote tally. The options described in this section are not mutually exclusive. Raters will have the ability to split their indicated preferences between a number of options. Each rater will have a total of 15 affirmative votes and 3 negative votes. Theses votes can be assigned to any one option or any combination of options. The number of votes assigned to an option should be placed in the unshaded box under the option choice. **Negative votes should be circled.** The aggregate tally of preferences will help the workgroup identify those options that have a wide base of support, those that are controversial, and those that are potentially unacceptable to some constituency. Specific comments are encouraged and will be forwarded to the workgroup. **PLEASE NOTE:** In this tally sheet, the first option is not always the status quo.

MECHANISMS / OPTIONS -->	1	2	3	4	5	COMMENTS
I. REGULATORY CHANGES						
II. SYSTEM WAIVERS						
III. PERMANENT WAIVERS						
IV. ANALYTICAL/MONITORING						
V. MAJOR MODIFICATIONS						

Comments:

PLEASE PROVIDE THE FOLLOWING INFORMATION TO FACILITATE NATIONAL COMPILATION OF THE RESULTS. THANK YOU!

STATE: _____

ORGANIZATION: _____

NAME & PHONE: _____

H

Appendix H

National Phase I/II/V Implementation Workgroup
National Tally of Preferences

January 1993

PREFACE

After receiving concerns about the implementation of the Phase I/II/V regulations from States and EPA Regions (see Appendix E), the Workgroup categorized the concerns by subject. Sub-workgroups were formed around these subject areas. Based on the State and Regional concerns, the sub-workgroups developed issues and potential options to address the issues (see Appendix G). These issues/options were sent to all Workgroup constituents.

This appendix summarizes State and Regional preferences for the issues/options developed by the sub-workgroups. For each issue there is a one page summary description of the issue and the associated options. Following each issue page is a facing page which presents histograms (bar charts) representing State and Regional preferences. The preferences registered for each issue was a major influence in the final recommendations developed by the Workgroup.

For each issue, three separate histograms representing national responses from PWS programs, Ground Water programs, and Laboratory programs are displayed. A summary of the State and Regional programs that responded to the Workgroup's "request for preferences" is included in the end of this appendix section.

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TABLE OF CONTENTS (CONTINUED)

TABLE OF CONTENTS (CONTINUED)

I. REGULATORY REFORMATTING

Regulatory Reformatting Tally Sheet

Issue: The regulations are poorly organized and are difficult to understand. The structural format for future regulations would have improved organization and follow a hierarchical outline format. The presentation would be simple and the style of expression would be concise.

Option:

1) Status quo, leave the format alone.

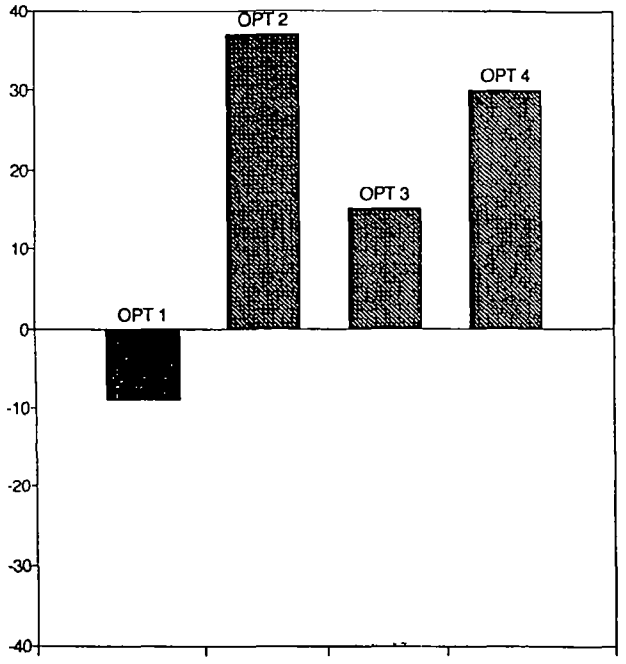
2) The regulations for Phases I, II, IIB, and V would be reorganized according to a generic outline. The outline would centralize common provisions and minimize the cross-referencing and effects on other regulations.

3) All of 40 CFR Part 141 would be reorganized.

4) In addition to any option above, develop a locational index to assist in finding the basic requirements necessary for IOC, SOC, and VOC compliance.

Regulatory Reformatting Tally Sheet

Program



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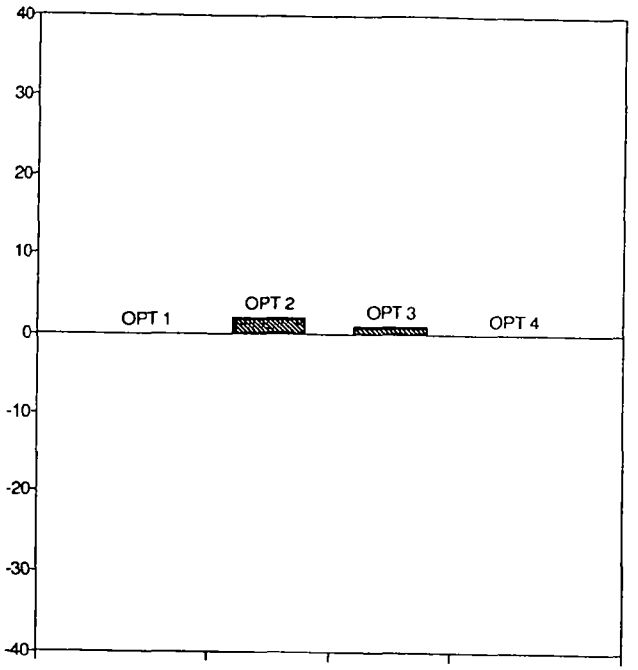
No	-9	0	0	0

Ground Water



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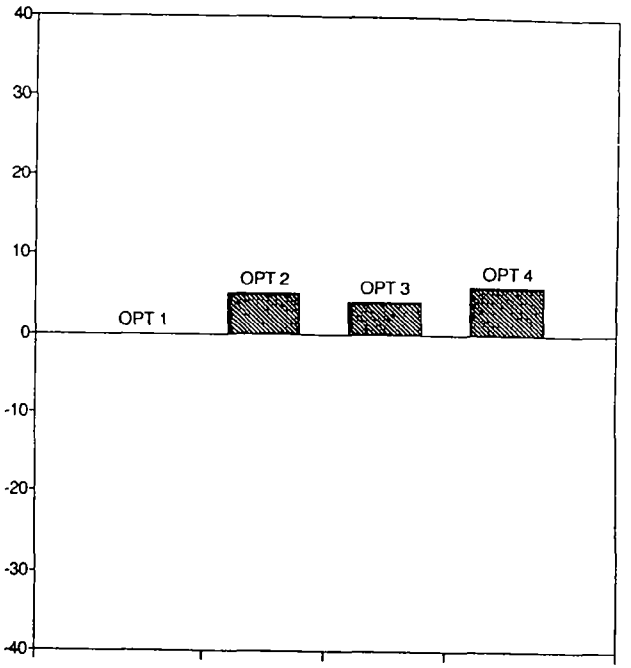
Yes	0	2	1	0
No	0	0	0	0

Laboratory



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Yes	0	5	4	6
No	0	0	0	0

II. TECHNICAL TRANSFER STRATEGY FOR DRINKING WATER SAMPLING WAIVERS

Technical Transfer for Monitoring Waivers

Issue: States need additional information regarding their options for designing sampling waiver programs.

Options:

(1) Status quo - the National Guidance signed and distributed to the Regional Offices on September 11, 1992, along with the Region V Guidance attached to it, are sufficient.

(2) Add general clarifications for State waiver program strategies to the National Guidance. Provide additional clarification for specific questions from State and Regional Offices.

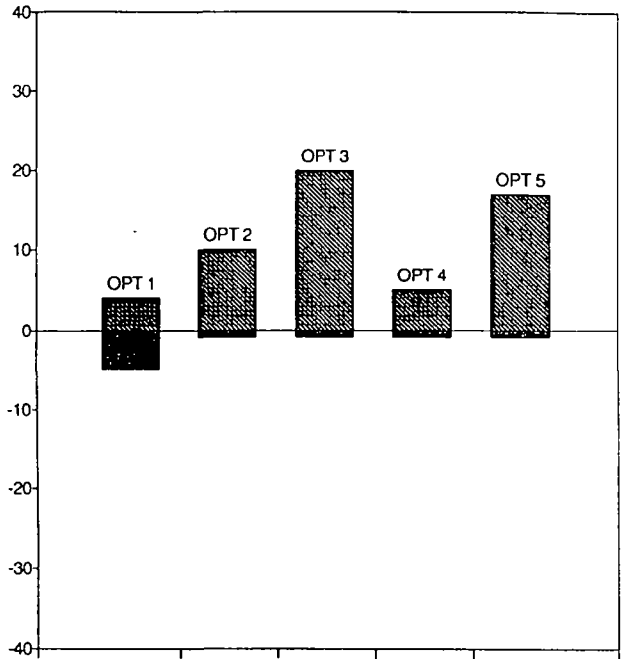
(3) Prepare abstracts of approved waiver programs for State and Regional Offices. An initial set of approved waiver programs should be available in the first quarter of 1993.

(4) Conduct technical transfer workshops during the first six months of 1993. The workshops would include, at a minimum, panel discussions of alternative State waiver strategies and Wellhead Protection Programs.

(5) Combine Options 2, 3, and 4.

Technical Transfer for Monitoring Waivers

Program



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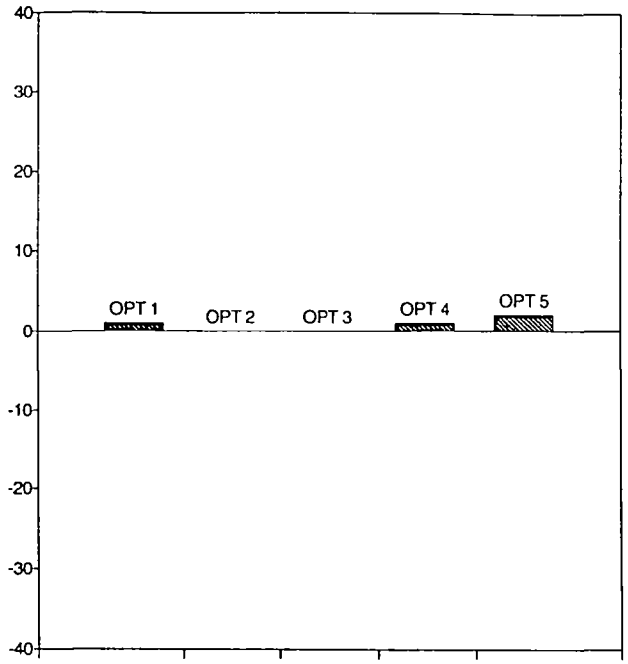
No	-5	-1	-1	-1	-1

Ground Water



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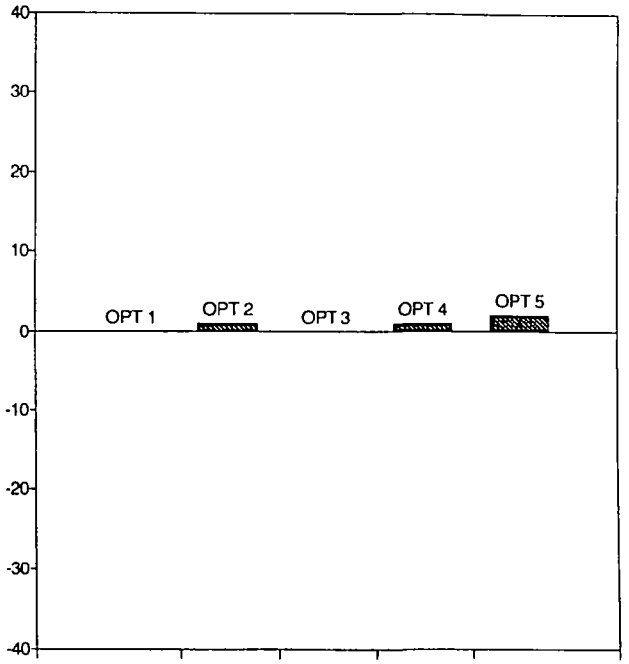
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	0	1	2
No	0	0	0	0	0

III. UNREGULATED CONTAMINANT MONITORING

Statutory and Regulatory Requirements for Repeat Monitoring of the Unregulated Contaminants

Issue: Inconsistencies currently exist regarding the repeat monitoring requirements of the unregulated contaminants. These inconsistencies exist between the SDWA and the Phase I, II, and V regulations.

Background: The SDWA requires unregulated contaminant monitoring every 5 years. The current information on Phase II/V does not identify this repeat requirement although there is nothing in either Phase II or V language that removes the requirement. The five year requirement can be found in the Phase I regulatory language. This five year repeat monitoring requirement is at odds with the standard monitoring framework that has been incorporated into Phase II/V.

Options:

1) Status quo.

2) No change would be made to the statute or the regulation, but current requirements would be clarified. EPA would prepare clear guidance on the purpose and requirements of the unregulated contaminant monitoring program that spans Phases I/II/V. Until regulatory inconsistencies can be resolved EPA should issue, in the interim, enforcement guidance which would reduce the potential for repeat monitoring compliance violations for unregulated contaminants.

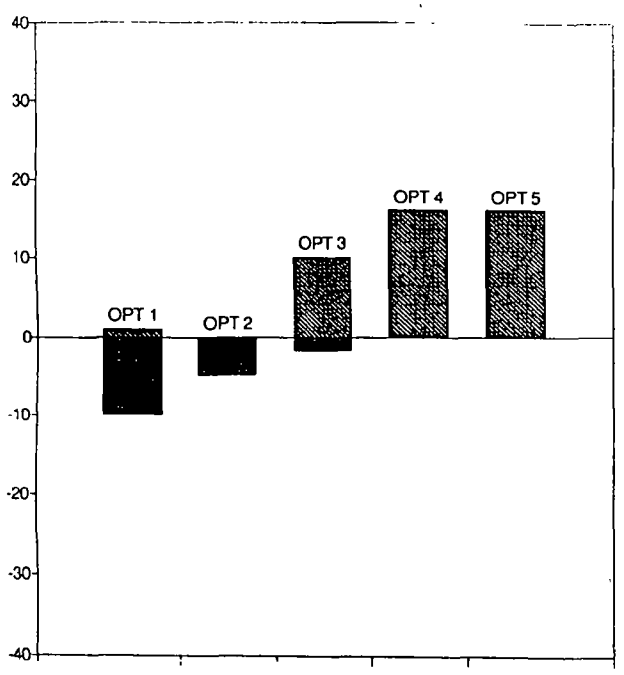
3) Both the statute and the regulations would be amended to reflect repeat monitoring requirements. The timeline would be modified to conform with the standard monitoring framework compliance periods of 3, 6, and 9 years.

4) Repeat unregulated monitoring requirements would be dropped from SDWA and the regulations.

5) The SDWA requirements for unregulated contaminant monitoring would be dropped. This would allow EPA the latitude and flexibility to design and modify an unregulated contaminant program without the restrictions of statutory requirement.

Statutory and Regulatory Requirements for Repeat Monitoring of the Unregulated Contaminants

Program



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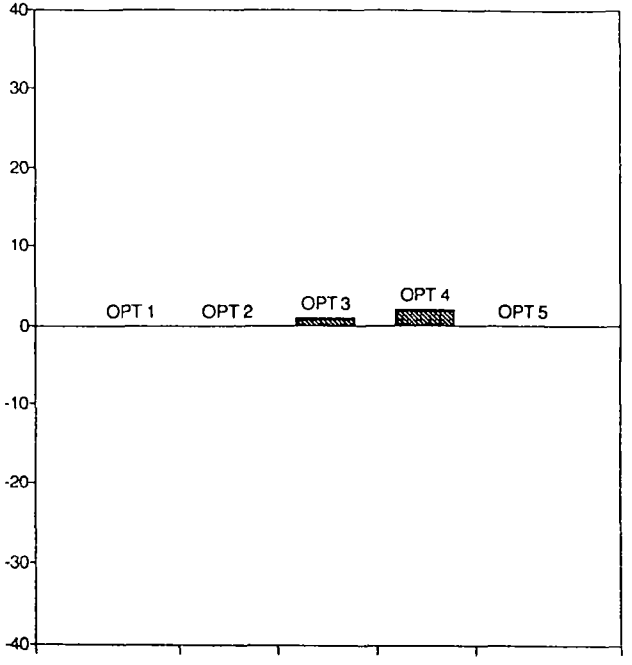
No	-10	-5	-2	0	0

Ground Water



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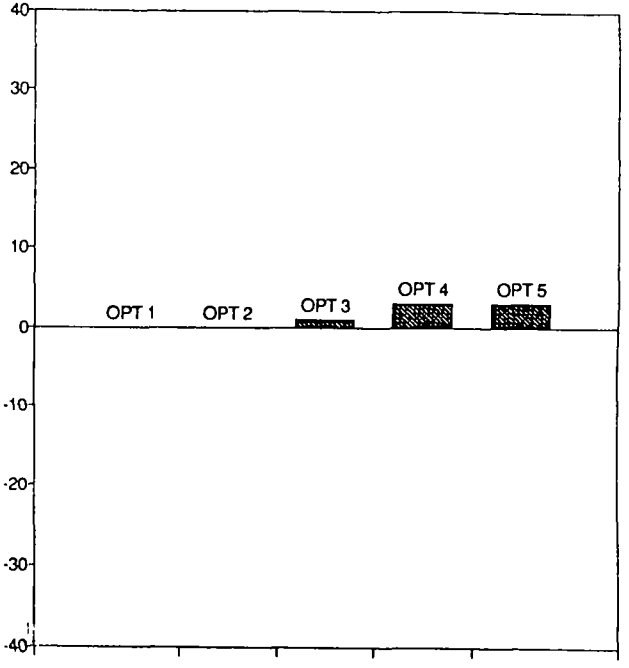
Yes	0	0	1	2	0
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	1	3	3
No	0	0	0	0	0

Individual Options for Changes to the Unregulated Contaminant Monitoring Program

(categorized by the mechanisms needed to facilitate the desired changes)

Regulatory Changes

Mechanism: Modifications to the unregulated contaminant monitoring program that would be made by way of regulatory changes.

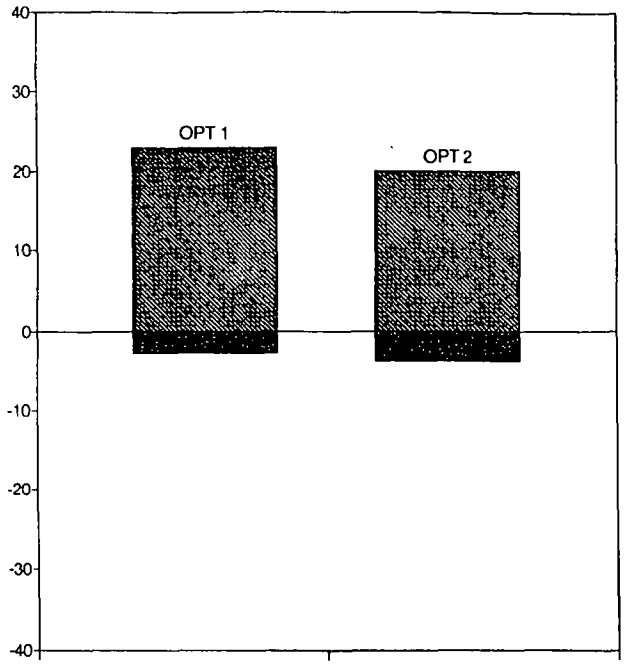
Options:

1) Expand State authority to allow States to modify monitoring requirements based upon unique flow, treatment, or use conditions. The current requirement listed in 141.40 (n) for four consecutive quarterly samples does not realistically apply to seasonal and secondary water supplies that are not (or can not) be used year round. The States need latitude to modify or adapt (not merely add) monitoring requirements to reflect unique source, use, or treatment conditions. The regulation would be modified to explicitly provide that flexibility to the State where it is needed. This would remove unnecessary regulatory requirements such as inappropriate monitoring locations or frequencies and it would maintain consistency with possible changes to regulated contaminants.

2) Remove the waiver restrictions for the VOC contaminants. This would allow unregulated VOCs to be handled just like SOCs with system waivers granted by a State. This option would: (1) remove the inconsistency between VOCs and SOCs, (2) increase State flexibility, and (3) reduce monitoring costs for non-vulnerable systems. However, this option does not reflect the differences between VOC and SOC occurrence and behavior.

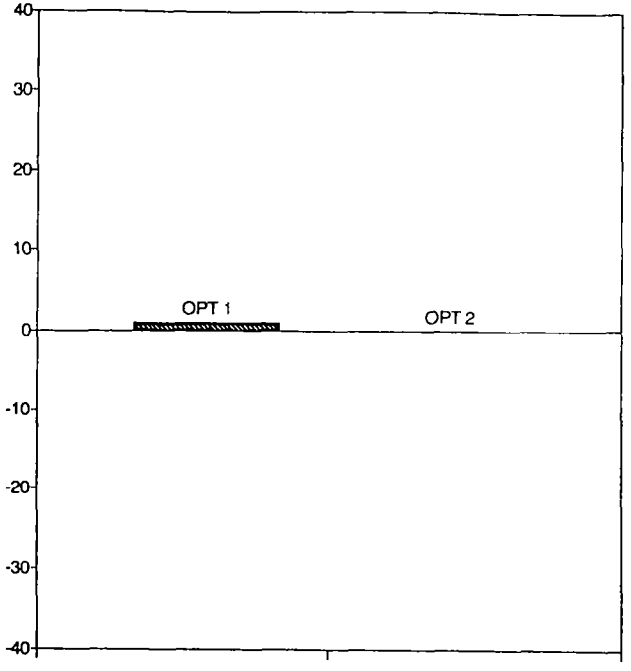
Regulatory Changes

Program



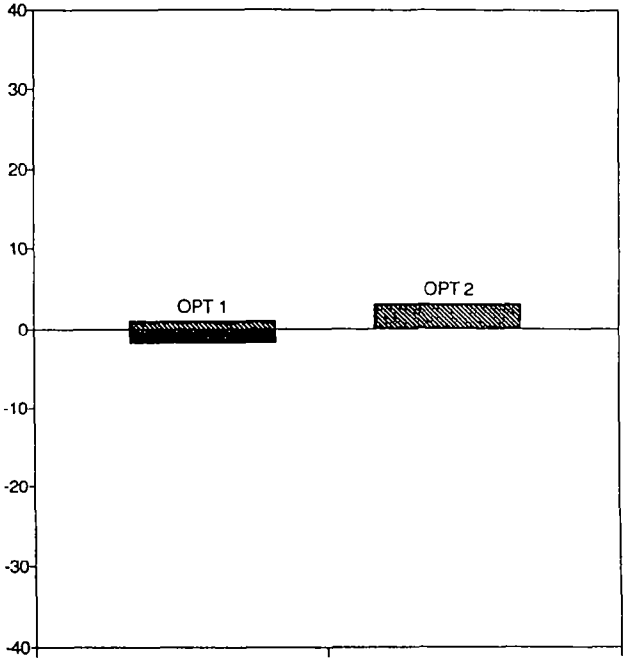
	OPT 1	OPT 2
Yes	23	20
No	-3	-4

Ground Water



	OPT 1	OPT 2
Yes	1	0
No	0	0

Laboratory



	OPT 1	OPT 2
Yes	1	3
No	-2	0

System Waivers

Mechanism: Modifications to the unregulated contaminant monitoring program that would be made by expansion of system waiver options.

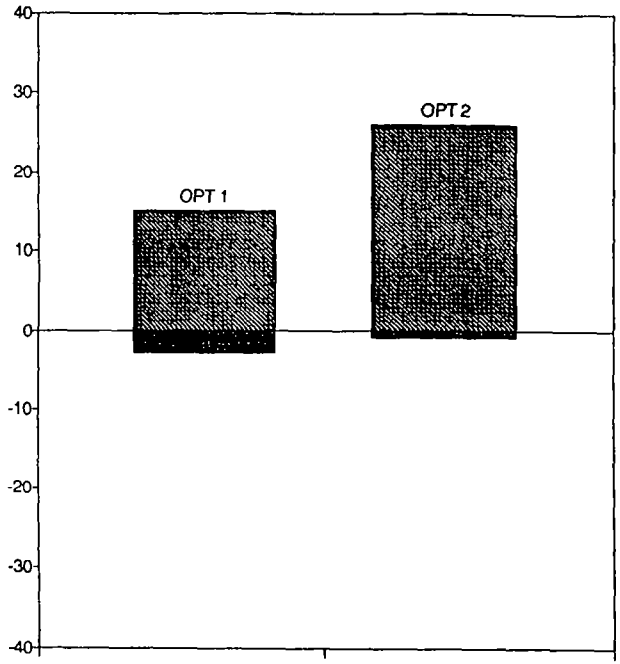
Options:

1) Provide an automatic waiver for unregulated SOCs to systems that receive a waiver from the regulated SOCs due to vulnerability (susceptibility based). If a system detects a regulated compound or is considered vulnerable to regulated SOCs, then it would be required to monitor for unregulated contaminants (or apply directly for a waiver for unregulated contaminants). This option would: (1) simplify the waiver process for States and systems, (2) reduce monitoring costs for low risk systems, and (3) increase State flexibility. However, the option ignores differences between fate, transport, and/or use between various VOCs and SOCs, and it may generate less data for EPA, making it more difficult to make regulatory decisions.

2) Expand State authority on waivers for unregulated as well as regulated compounds. (Any changes made here should be consistent with changes made in standard monitoring framework or under guidance developed for regulated compounds.) This option would: (1) target the impact of unregulated monitoring programs on the most vulnerable systems, (2) reduce monitoring impact on low risk systems, and (3) increase State flexibility. However, the targeted information may skew data and impact EPA's ability to make needed regulatory decisions. EPA would have to develop alternative methods for comparing multi-State data.

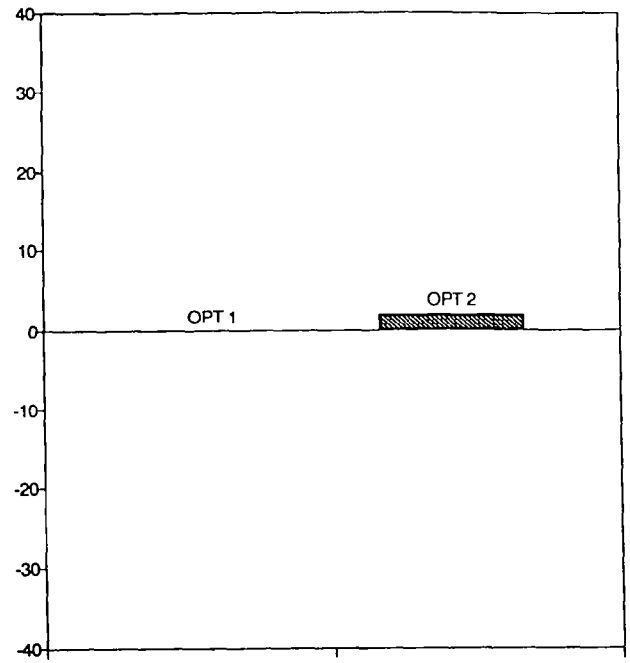
System Waivers

Program



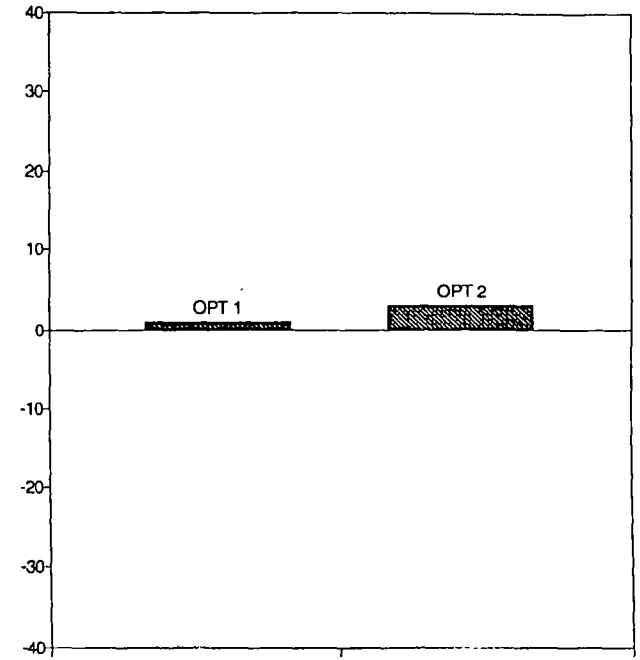
	OPT 1	OPT 2
Yes	15	26
No	-3	-1

Ground Water



	OPT 1	OPT 2
Yes	0	2
No	0	0

Laboratory



	OPT 1	OPT 2
Yes	1	3
No	0	0

Permanent Waivers

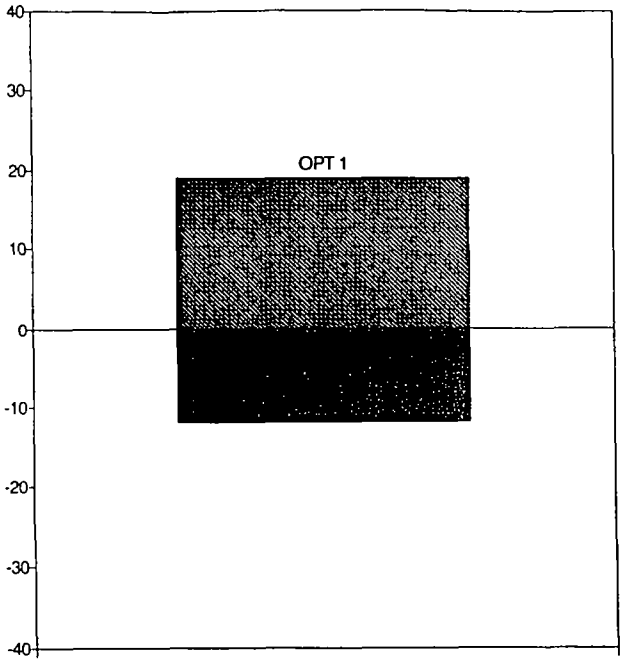
Mechanism: Modifications to the unregulated contaminant monitoring program that would be made by way of State-based permanent waivers.

Options:

1) Allow States to develop permanent waivers for unregulated contaminants. Use, susceptibility, and/or regulated monitoring results would be used to permanently waive low risk water systems from unregulated monitoring. This would be a State option that would be granted, reviewed, or revoked at State discretion. State option and criteria would be developed as part of a State primacy package and would be subject to EPA review and approval. This option would: (1) reduce administrative and financial burden on States and water systems, (2) increase State flexibility, and (3) simplify compliance monitoring tracking with automatic waivers for low risk systems. However, the option may require significant State resources to implement and the expanded use of waivers may significantly reduce the quantity of data generated and affect EPA's ability to make decisions. In addition, some of the unregulated contaminants may eventually be changed to regulated and thus negatively impact grandfathering of data.

Permanent Waivers

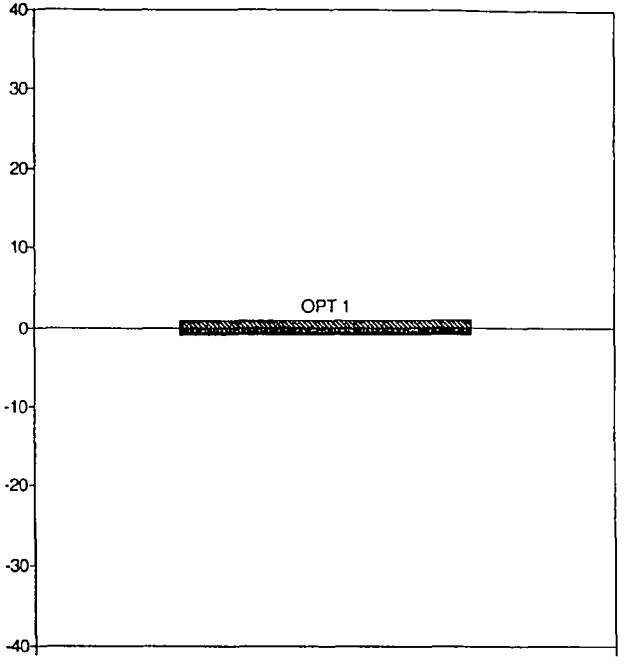
Program



	OPT 1

Yes	19
No	-12

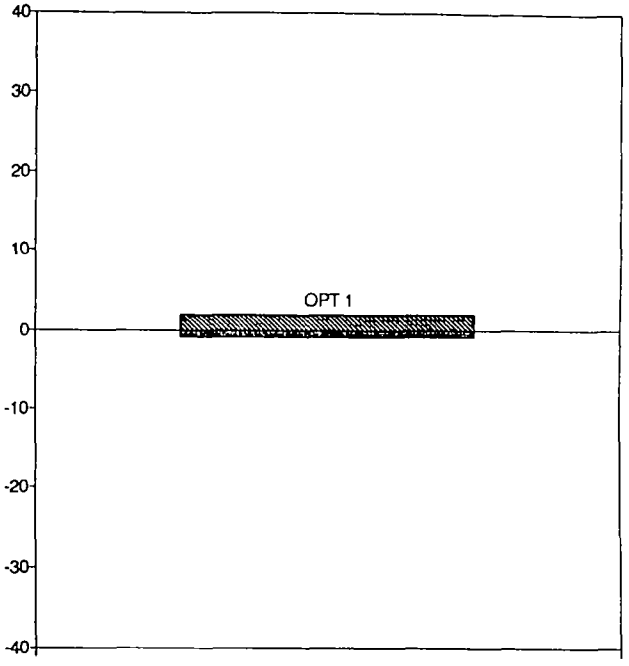
Ground Water



	OPT 1

Yes	1
No	-1

Laboratory



	OPT 1

Yes	2
No	-1

Analytic/Monitoring

Mechanism: Modifications to the unregulated contaminant monitoring program that would be made by changes in analytical or monitoring requirements.

Options:

1) Limit the types and sizes of systems required to monitor for unregulated contaminants by either, (1) raising the level of system size (from >150 connections to < 3,300 population) that is exempted from unregulated contaminant monitoring, or (2), limiting the unregulated contaminant monitoring program to larger community systems.

2) Restrict the list of unregulated compounds for which monitoring is required by either (1), limiting the unregulated contaminant monitoring to those substances that can be detected by analyses required for regulated contaminants or (2), limiting unregulated contaminant monitoring to multiple analyte methods (use only broad spectrum analysis techniques, i.e., no single analyte methods).

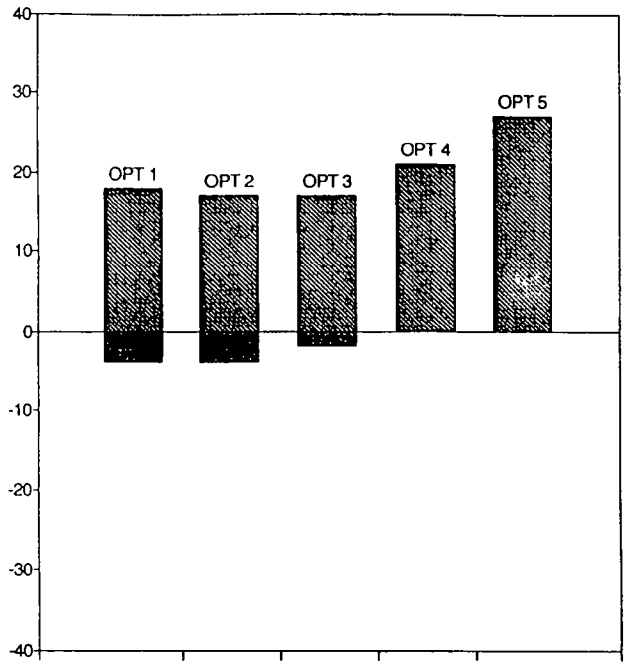
3) Reduce the level of quantification needed for unregulated contaminant monitoring and allow lower cost qualitative analysis (e.g., PQL or the use of alternative methods).

4) Reduce the monitoring frequency for unregulated contaminants. The reduction would be to annual or two non-consecutive quarters, as opposed to four consecutive quarters.

5) Immediately remove unregulated contaminants from the unregulated list as soon as they become regulated contaminants.

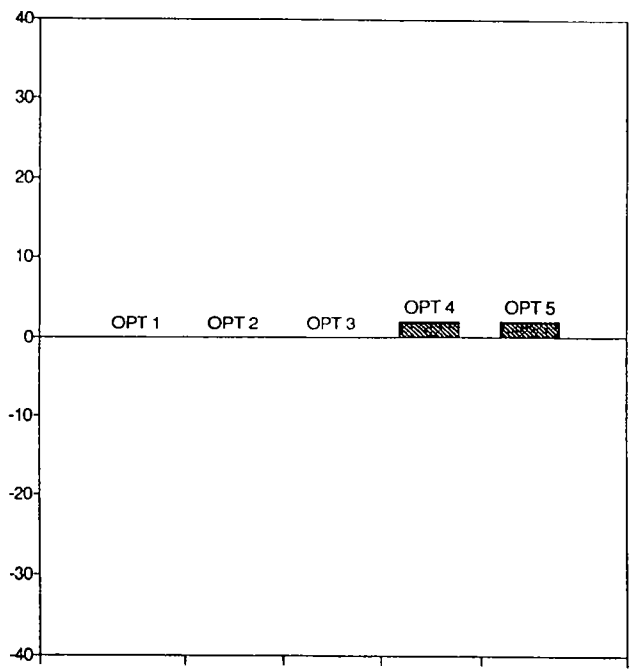
Analytic/Monitoring

Program



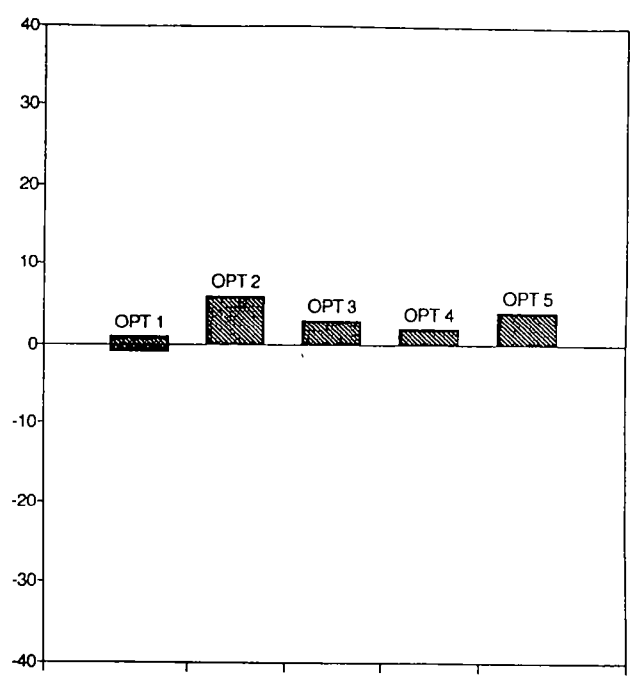
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	18	17	17	21	27
No	-4	-4	-2	0	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	0	2	2
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	1	6	3	2	4
No	-1	0	0	0	0

Major Modifications

Mechanism: Modifications to the unregulated contaminant monitoring program that would be made by major modifications to the current program.

Options:

1) States can allow substitution of individual samples for four consecutive quarterly samples. Individual States could develop State-wide year round occurrence data using single quarter data collected from each water system. Each State could divide the water systems into three groups, as they must do now, one for each of year of the compliance period. Then States could further divide each group into four groups, one for each quarter of the year.

2) States would be given the responsibility for collection of exposure and occurrence data. The requirement for unregulated monitoring data would be placed on States and not individual water systems. State plans would be subject to EPA approval and based on EPA criteria and guidance.

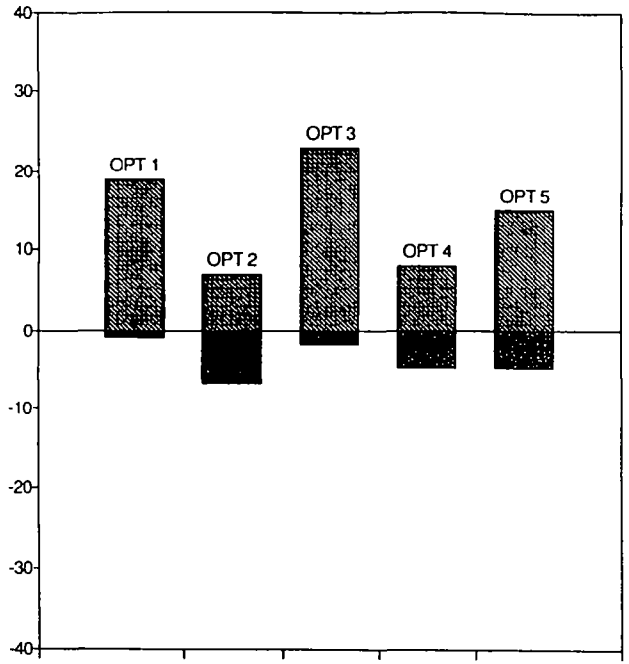
3) Data would be obtained through EPA surveys. EPA would design and conduct national surveys to provide the information needed to determine if specific contaminants should be regulated.

4) EPA would identify the data needed to develop a national occurrence estimate and generate the data jointly with PWSs. Public water systems in a targeted area would have the option of jointly funding the sampling and analysis applicable to their location.

5) Remove the unregulated monitoring requirement. EPA would find other mechanisms to collect or estimate exposure and/or occurrence data for potentially regulated compounds. This option would explicitly remove system responsibility for monitoring under Phase II/V or the SDWA.

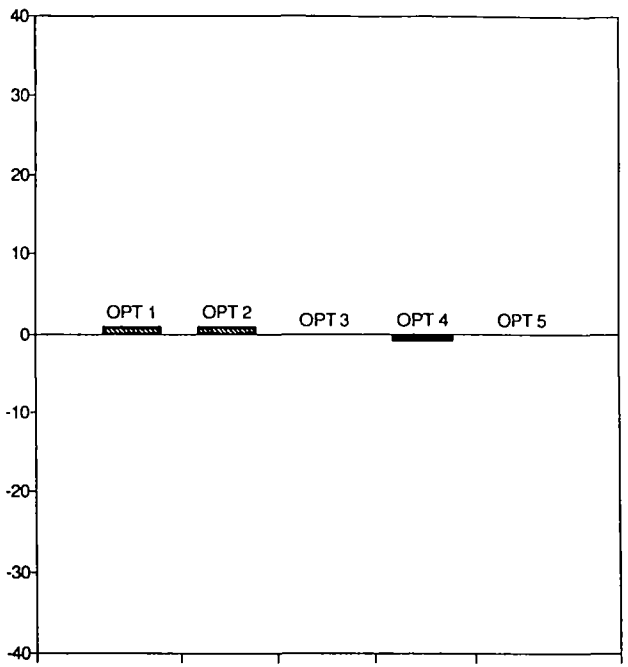
Major Modifications

Program



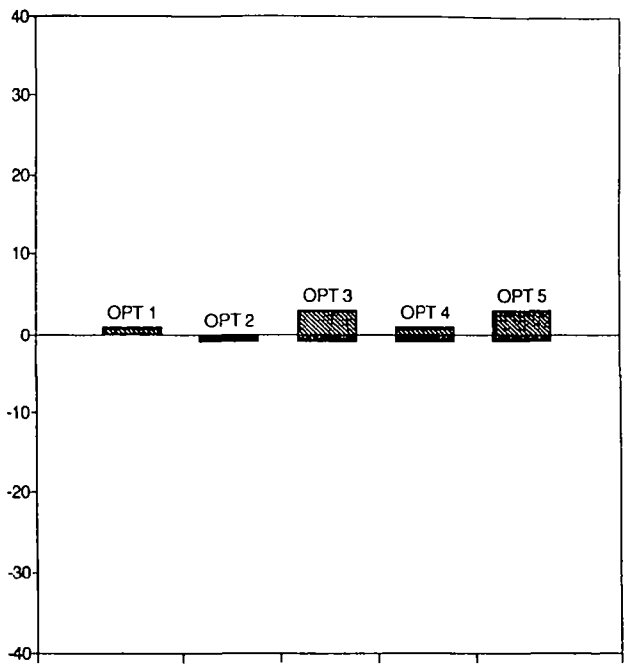
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	19	7	23	8	15
No	-1	-7	-2	-5	-5

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	1	1	0	0	0
No	0	0	0	-1	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	1	0	3	1	3
No	0	-1	-1	-1	-1

IV. MISCELLANEOUS ISSUES

Issue 1

Issue 1: Information is difficult to obtain and is not collected and disseminated efficiently. Users need easy access to information regarding analysis methods, lab certification criteria, FRDS and data management issues, regulatory changes, guidance, interpretations, funding restrictions, Primacy requirements and monitoring/waiver modifications.

Option:

1) Status quo. Use Hotline Newsletter and informal communication methods.

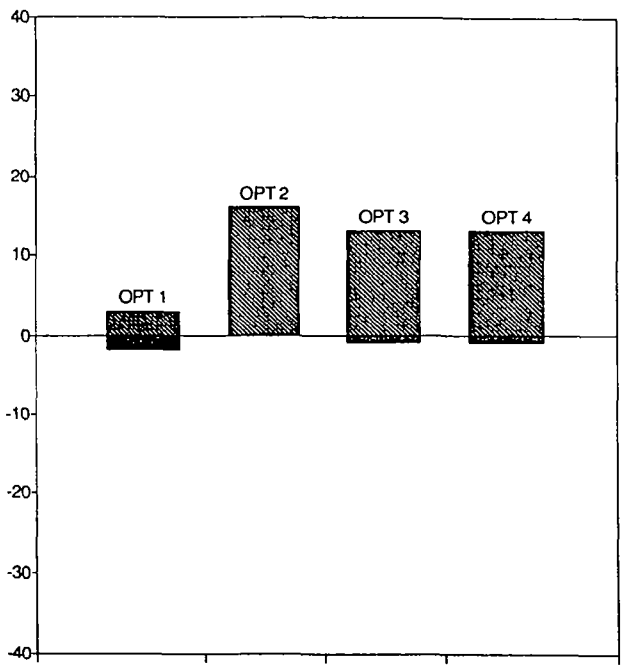
2) Create an expanded central information distribution center to receive and respond to all inquiries.

3) Establish dedicated information handling and distribution centers with specific responsibilities in separate areas such as: laboratory/certification activities; data handling/reporting (FRDS II); regulation modification/guidance/interpretation; health effects/contaminant specific data; etc.

4) Establish mailing lists or a bulletin board that would automatically send specific types of information to pre-identified groups.

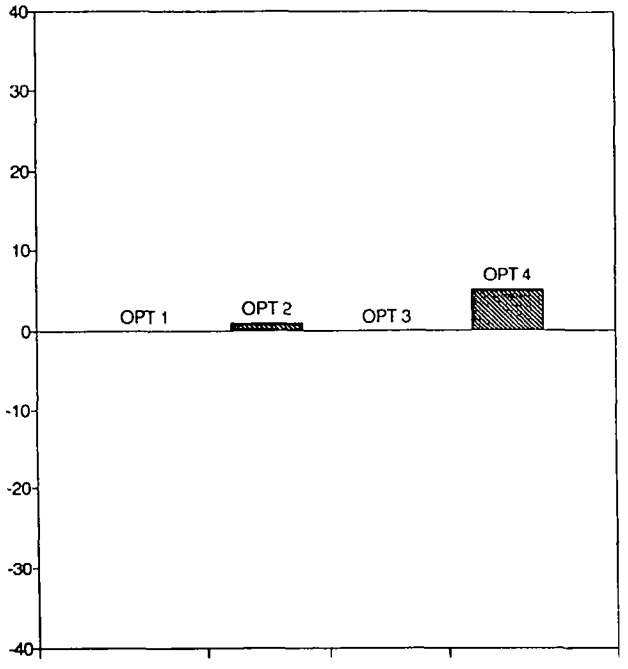
Issue 1

Program



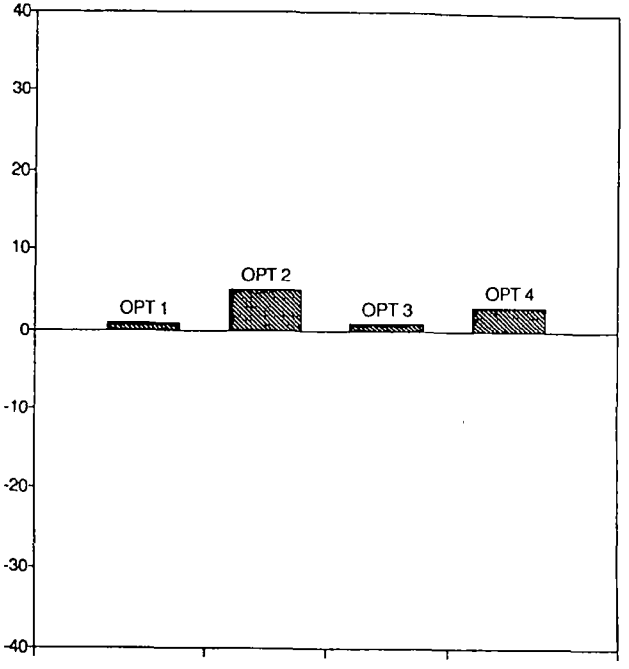
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	3	16	13	13
No	-2	0	-1	-1

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	1	0	5
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	5	1	3
No	0	0	0	0

Issue 2

Issue 2: An efficient tracking system is not available for new and revised data handling issues (FRDS). The current communication process is hierarchical (HQ to Branch Chief to Section Chief to FRDS contact to State) and is often untimely or altogether inadequate.

Option:

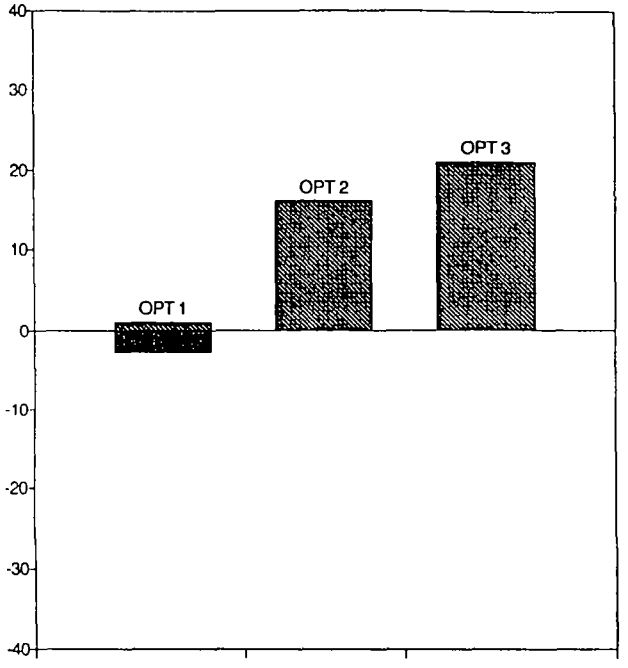
1) Status quo.

2) EPA would provide guidance to streamline the flow of issues by creating a direct path of communication between HQ, Regional FRDS contact, and State FRDS contact.

3) Dual lines of communication would be created. All documents would be sent through the traditional channels, as well as through a direct pathway between HQ and State/Regional FRDS contacts.

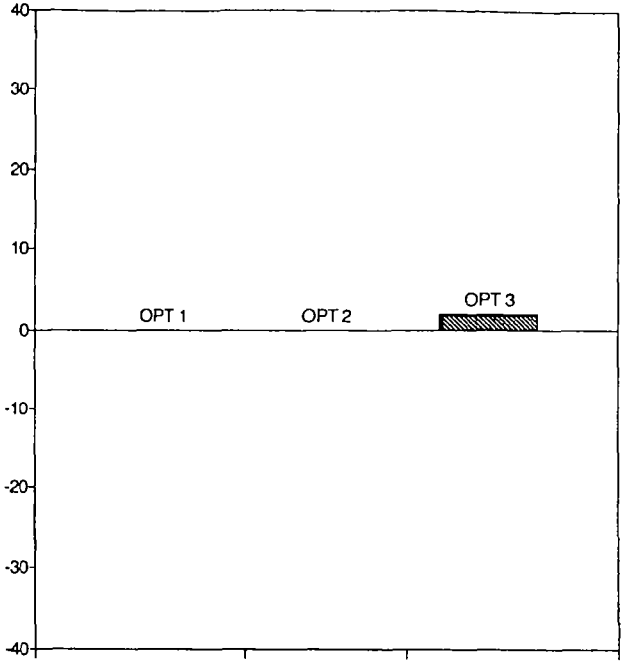
Issue 2

Program



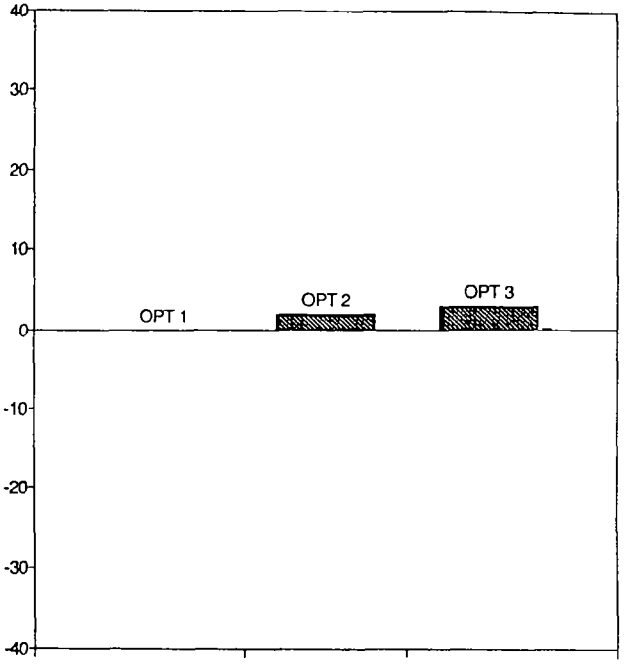
	OPT 1	OPT 2	OPT 3
Yes	1	16	21
No	-3	0	0

Ground Water



	OPT 1	OPT 2	OPT 3
Yes	0	0	2
No	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3
Yes	0	2	3
No	0	0	0

V. ANALYTICAL AND LABORATORY CERTIFICATION ISSUES

Issue 1 (New Methods)

Issue 1: The process for identifying and adopting new analytical methods, or adopting improved versions of previously promulgated methods, is too slow and complex to meet current drinking water laboratory certification and compliance monitoring requirements.

Background: Recent drinking water regulations cite different versions of the same analytical method, do not promulgate a method for all regulated contaminants contained in the scope of the method or do not include the latest improved version of an EPA method.

To be certified, a laboratory must use "approved" analytical methods. Revised analytical methods must be approved and published in a Federal Register Notice (This process can take up to two years).

Options:

1) Status quo.

2) Obtain a statutory change which would permit EPA to more rapidly adopt new technologies and approve new or improved versions of promulgated EPA analytical methods.

3) Work with EPA lawyers to improve the process under current statutory authority.

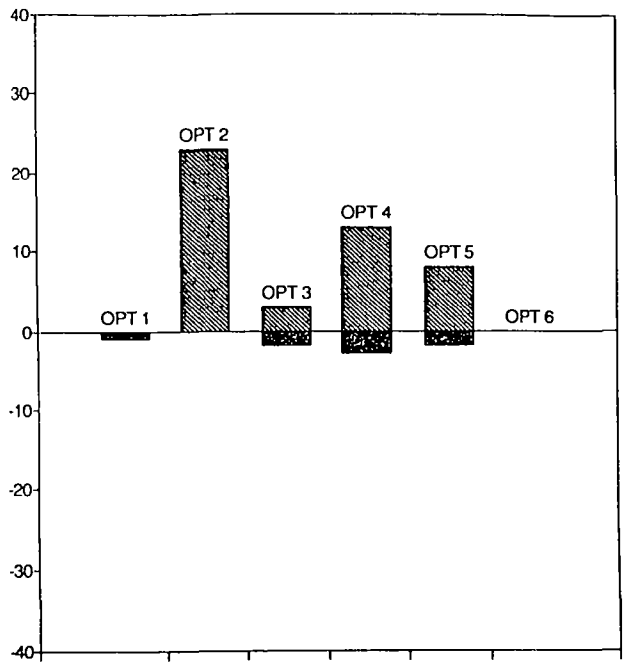
4) Have EPA adopt performance-based methods in which key performance criteria (that an alternative method must meet to be approved for compliance analysis) are specified. The performance criteria would be specified for each contaminant, and would cover sensitivity, precision, accuracy, matrix effects and sample handling procedures.

5) Add resources to the current alternative test procedures (ATP) approval process. Modify ATP so that EPA Regional Administrators can approve methods for local use.

6) No opinion.

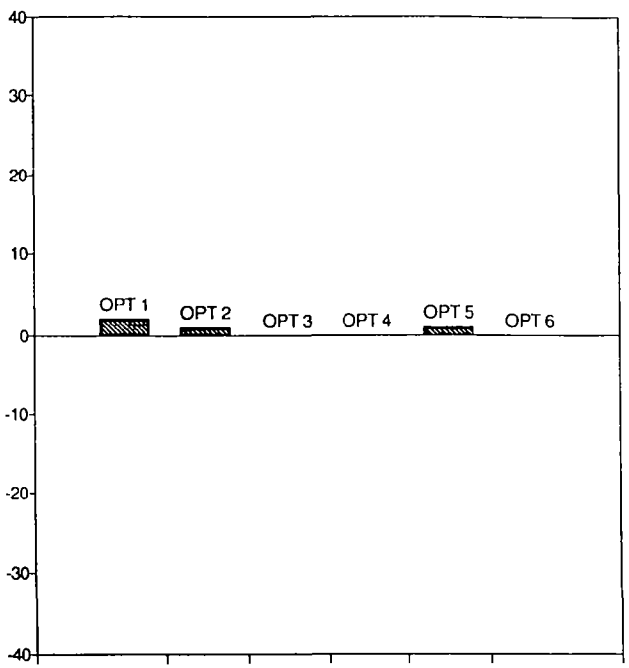
Issue 1 (New Methods)

Program



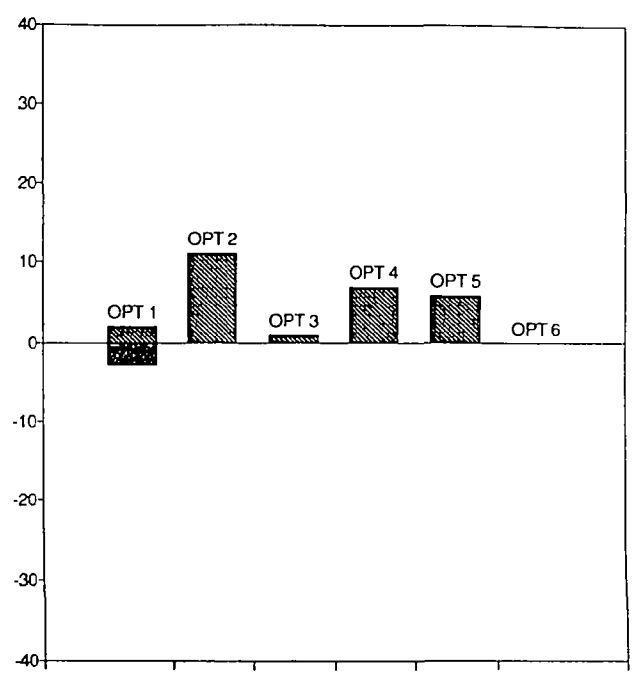
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	0	23	3	13	8	0
No	-1	0	-2	-3	-2	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	2	1	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	2	11	1	7	6	0
No	-3	0	0	0	0	0

Issue 2 (Low MDLs)

Issue 2: Method detection limits (MDLs) specified as monitoring triggers for some contaminants are orders of magnitude below the maximum contaminants levels (MCLs) and maximum contaminant levels goals (MCLGs).

Option:

1) Status quo.

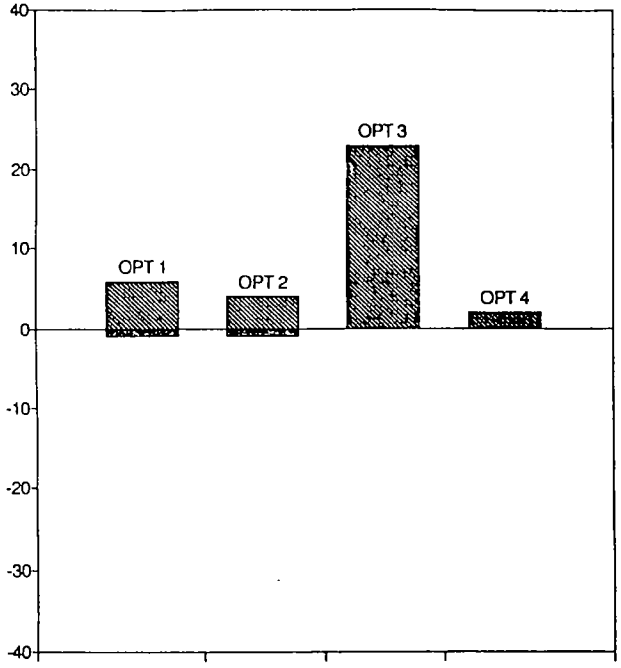
2) Obtain an MDL from several laboratories for each chemical and compute an average MDL level to change the current monitoring trigger level.

3) Arbitrarily but consistently specify a monitoring trigger closer to the MCLG. For example, for contaminants with health affects that are not acute, the monitoring trigger would never be less than 10% of the MCL.

4) No opinion.

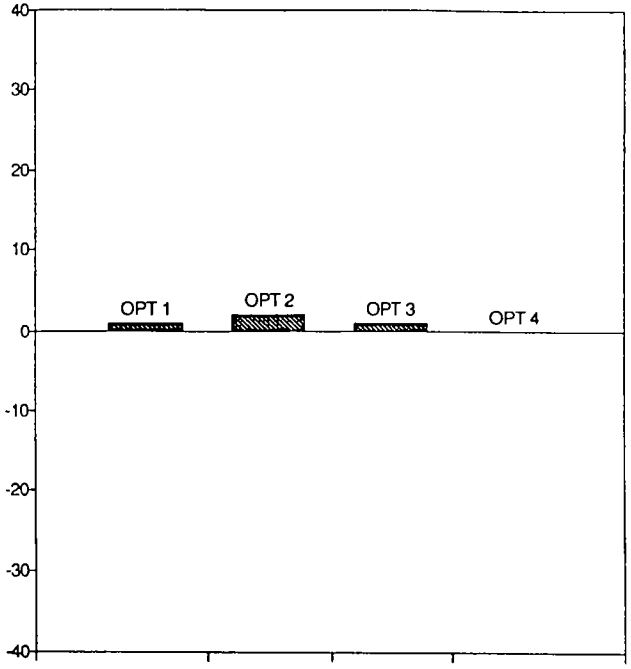
Issue 2 (Low MDLs)

Program



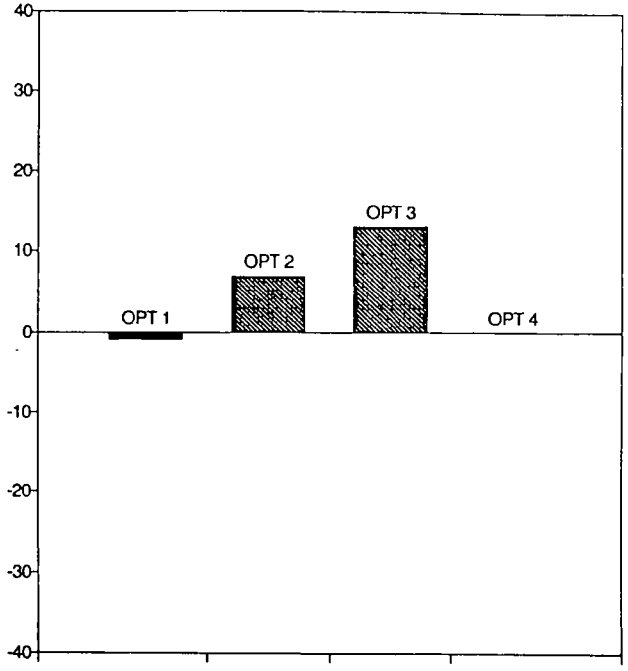
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	6	4	23	2
No	-1	-1	0	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	2	1	0
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	7	13	0
No	-1	0	0	0

Issue 3 (Certification Manual)

Issue 3: 40 CFR §141.23(k) (5) is not specific enough as it pertains to laboratories approved by EPA or the State. It does not contain provisions for on site inspections of laboratories. Furthermore, the certification manual is not formalized or promulgated. The result is that some requirements for certification are guidance and some requirements are regulation.

Option:

1) Status quo.

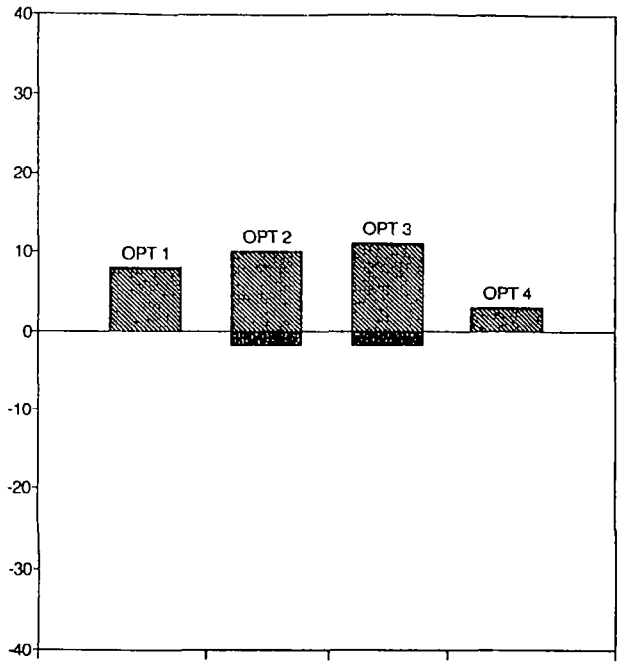
2) Put the Certification Manual into regulations.

3) Make the Certification Manual guidance and remove all certification requirements from the regulations.

4) No opinion.

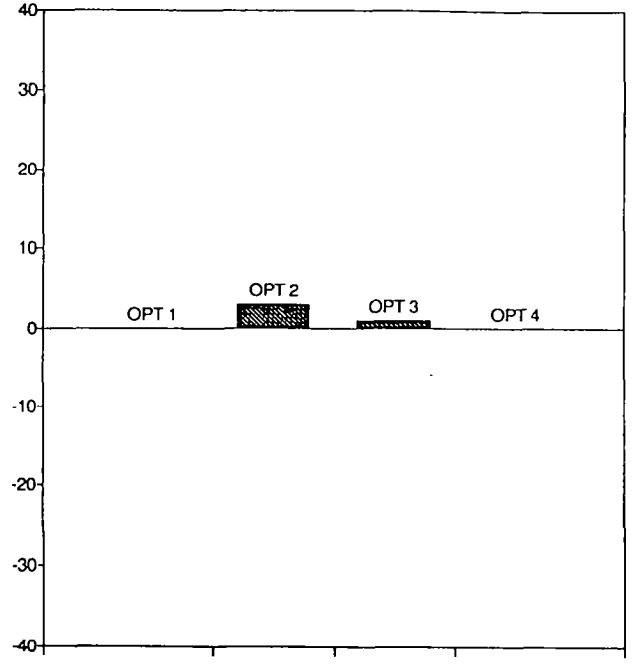
Issue 3 (Certification manual)

Program



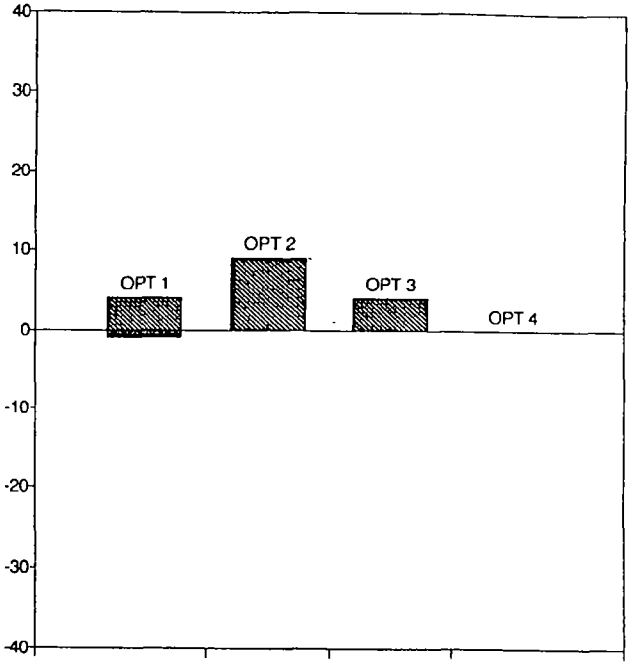
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	8	10	11	3
No	0	-2	-2	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	3	1	0
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	4	9	4	0
No	-1	0	0	0

Issue 4 (Required MDLs)

Issue 4: Certification for regulated VOCs require a laboratory to achieve an MDL of 0.5 ppb. The MDL is not used as a certification requirement for other regulated organic contaminants.

Background: If a utility's laboratory passed EPA's PE samples for VOCs, used an approved method, but achieved an MDL of 0.6 ppb, certification could be denied under current requirements.

Option:

1) Status quo.

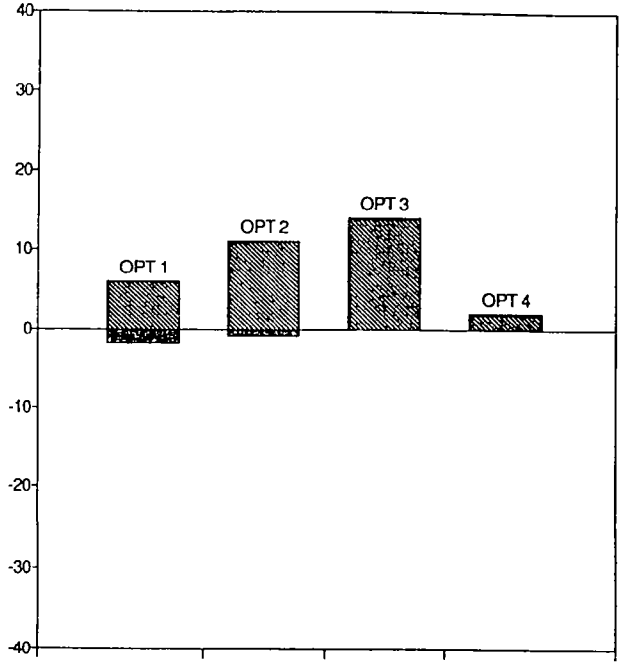
2) Require that the detection limits specified in the regulations be a certification requirement for all contaminants, not just for VOCs.

3) Remove the MDL certification requirements for VOCs.

4) No opinion.

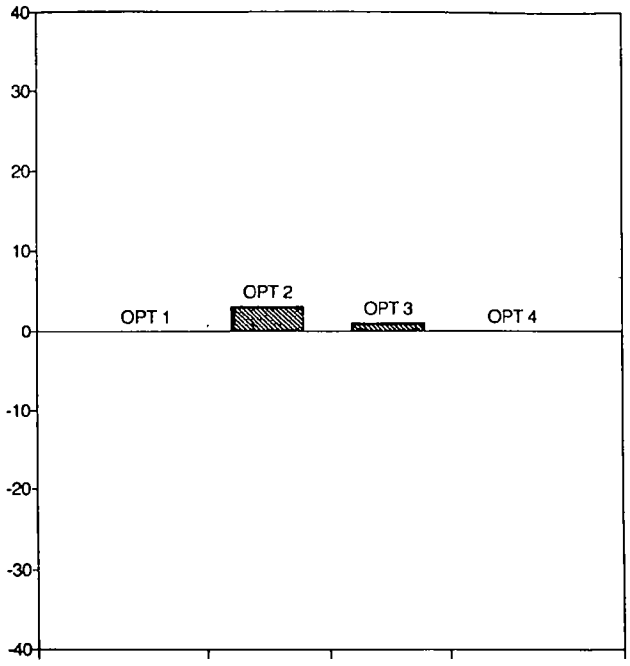
Issue 4 (Required MDLs)

Program



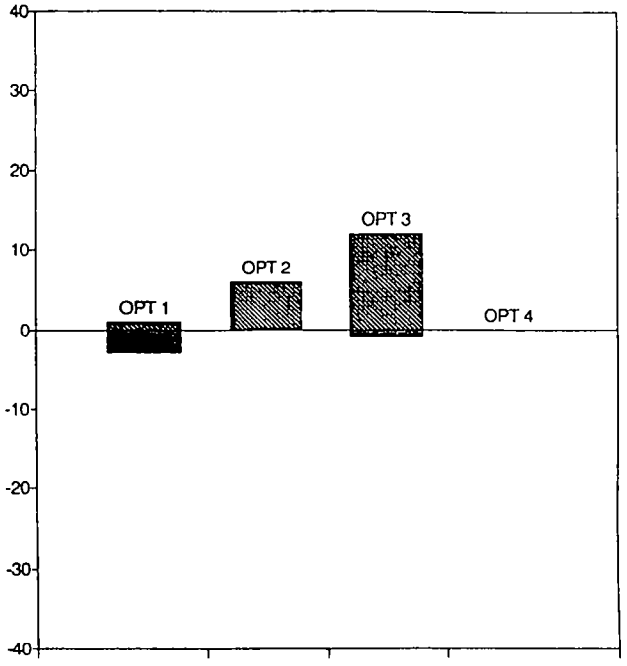
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	6	11	14	2
No	-2	-1	0	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	3	1	0
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	6	12	0
No	-3	0	-1	0

Issue 5 (PE Samples)

Issue 5: There is concern about EPA not having adequate time to send out Performance Evaluation (PE) samples which would allow laboratories to conditionally certify for Phase II/V analyses in time for the 1993 monitoring. Phase II certification is based on PE study performance.

Option:

1) Status quo.

2) If statutory deadlines must be met, allow certification conditionally without PE samples or on-site visits.

3) Require that monitoring cannot begin until laboratories have been certified.

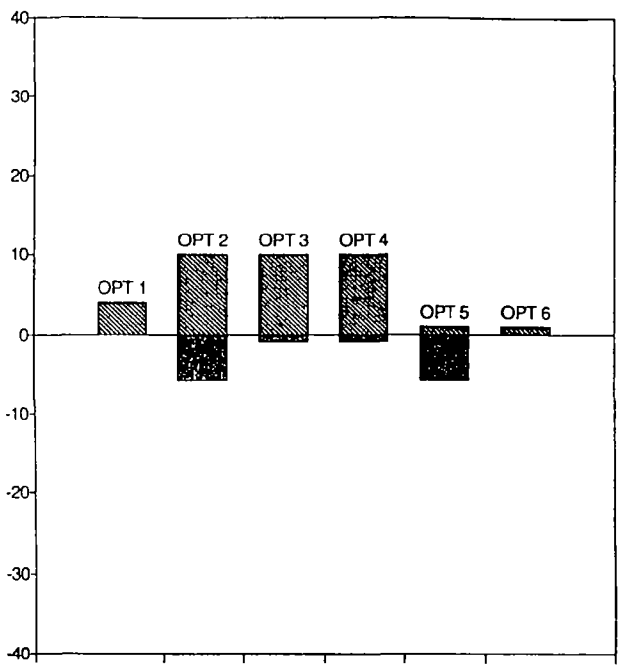
4) If laboratories are not certified by the beginning of a monitoring period, push monitoring back to the next compliance period.

5) If no laboratories are certified at the beginning of the compliance period, systems may use a laboratory until certification is granted to the laboratory.

6) No opinion.

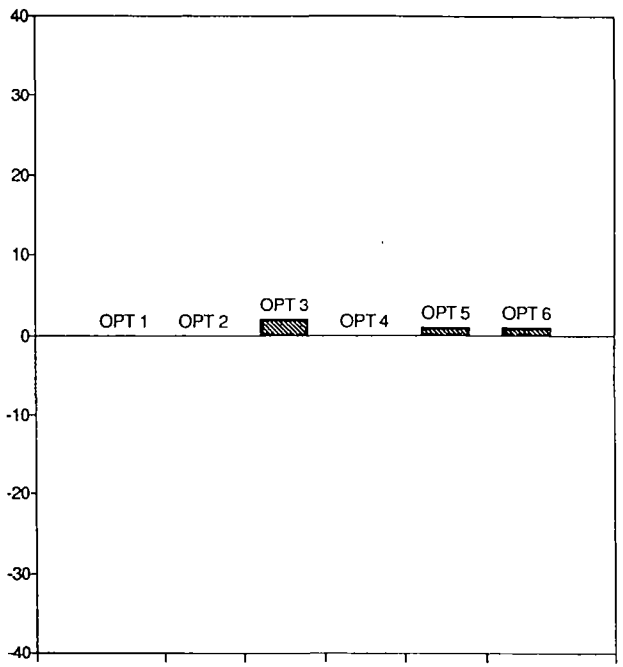
Issue 5 (PE Samples)

Program



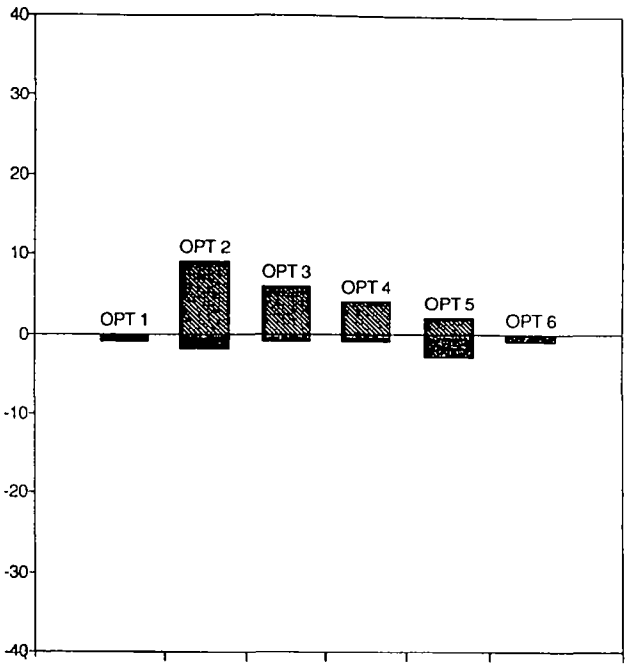
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	4	10	10	10	1	1
No	0	-6	-1	-1	-6	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	0	0	2	0	1	1
No	0	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5	OPT 6
Yes	0	9	6	4	2	0
No	-1	-2	-1	-1	-3	-1

Issue 6 (Nitrite)

Issue 6: Since free chlorine will oxidize nitrite to nitrate, analysis for nitrite in a chlorinated system would not be detected. Also, the requirement for nitrite to be analyzed within 48 hours will be very difficult for many water systems to meet.

Option:

1) Status quo.

2) Lower the detection trigger to 0.5 ppm and measure nitrite and nitrate in the same sample as "combined" nitrate.

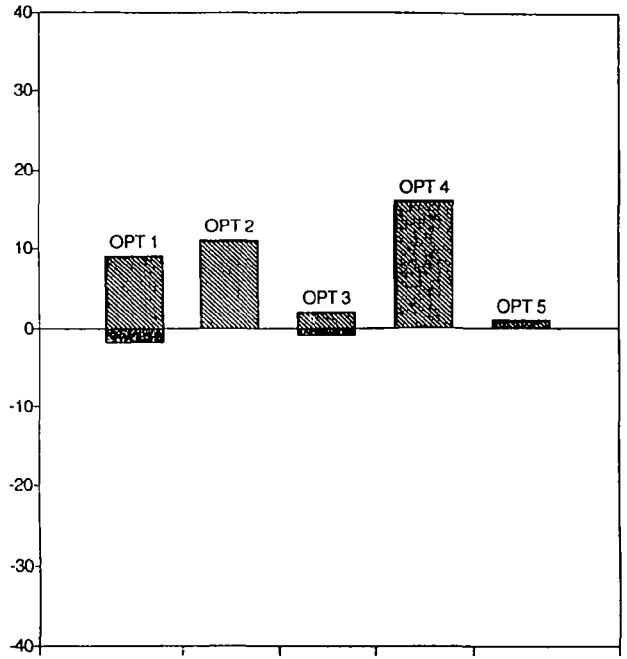
3) Develop and approve a field test kit for nitrite to allow water systems to conduct compliance monitoring. Require sampling before chlorination.

4) Waive nitrite monitoring in any system that maintains a free chlorine residual.

5) No opinion.

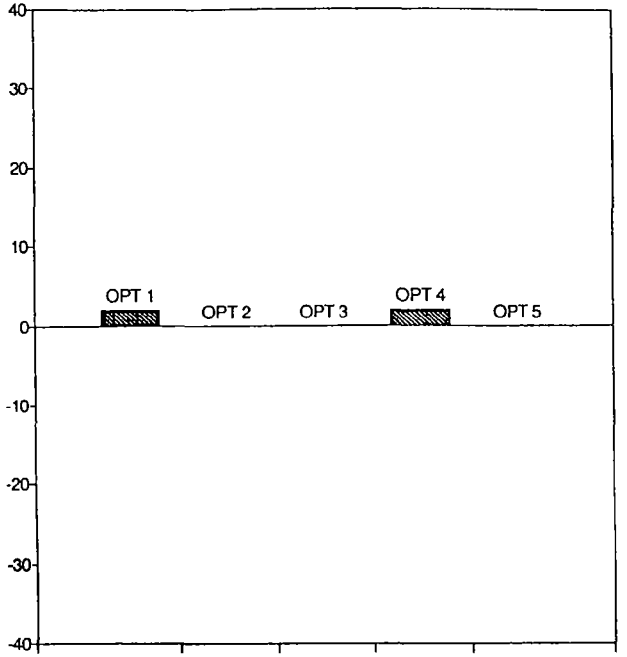
Issue 6 (Nitrite)

Program



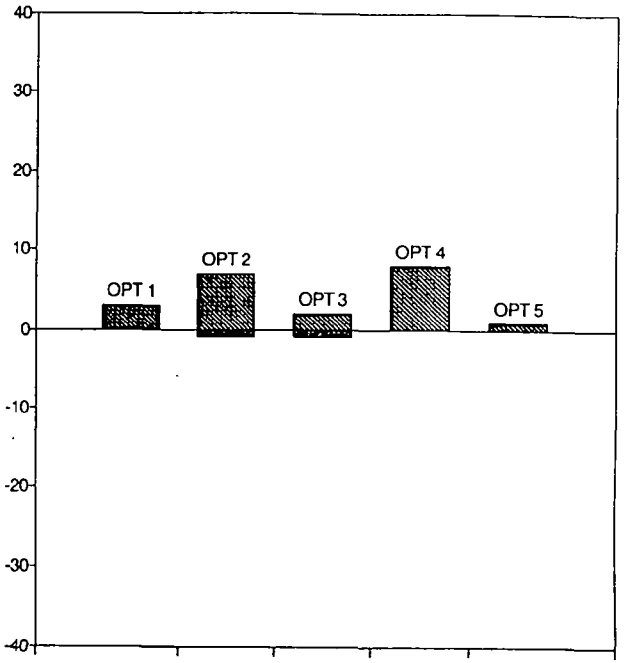
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	9	11	2	16	1
No	-2	0	-1	0	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	2	0	0	2	0
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	3	7	2	8	1
No	0	-1	-1	0	0

VI. MONITORING AND WAIVER ISSUES

Generic Issue

Issue: Framework requirements are too complex and are insufficiently integrated to allow an efficient use of previous monitoring data and other resources. Waiver requirements are overly prescriptive and resource intensive.

Options:

(1) Completely redesign the Standardized Monitoring Framework according to an agreed upon overriding philosophy (e.g., ensuring an adequate level of flexibility).

(2) Retain the basic framework; make regulatory fixes identified in the problem statements and specific issues on an ad hoc basis.

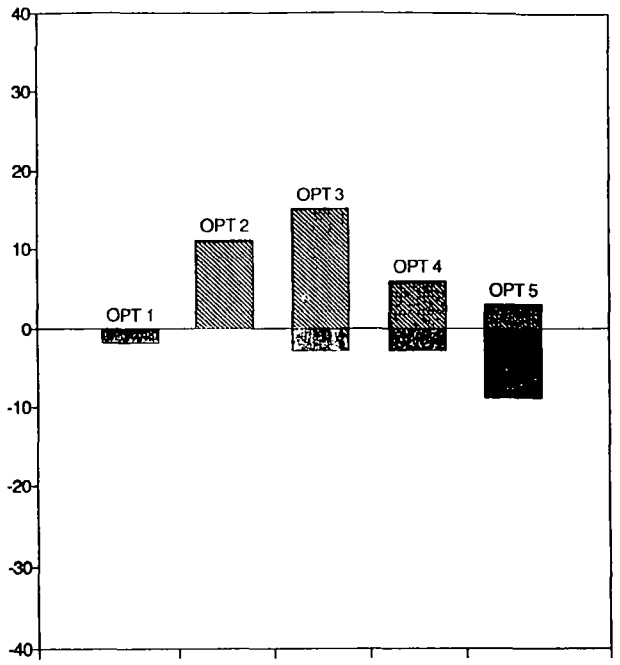
(3) Retain the Standardized Monitoring Framework structure with or without ad hoc regulatory fixes, but move waiver requirements out of the regulations and into guidance.

(4) Abolish the Standardized Monitoring Framework, including waiver requirements, but require States to submit a monitoring/waiver plan for EPA approval. As a variant to this option, EPA could require a minimal amount of monitoring (e.g., once every five years) in addition to the State plan.

(5) Abolish the Standardized Monitoring Framework structure. No Federal monitoring requirement would be mandated. EPA would set the MCL, and States would design their own monitoring programs.

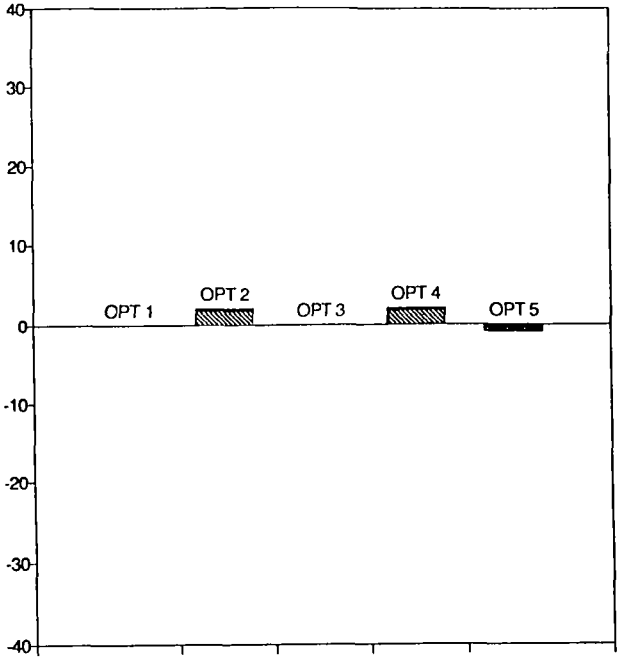
Generic Issue

Program



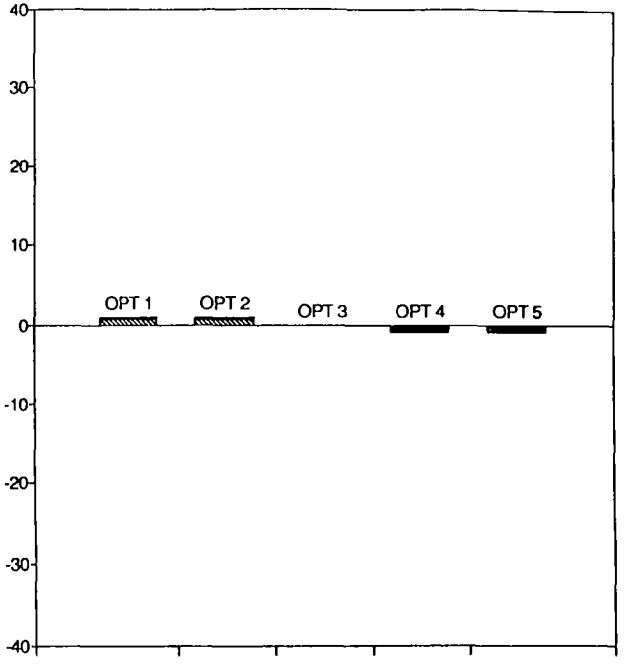
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	11	15	6	3
No	-2	0	-3	-3	-9

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	2	0	2	0
No	0	0	0	0	-1

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	1	1	0	0	0
No	0	0	0	-1	-1

Individual Issues

Flexibility

Flexibility 1

Issue: Give States discretion to grant waivers when warranted, and not just for susceptibility and use reasons; give States more discretion in granting susceptibility and use waivers.

Options:

1) Status quo.

2) The regulatory language would include only the minimum requirements for granting waivers. Geographic variations and other differences which occur throughout the country would be recognized so that specific contaminants or groups of contaminants could be waived, based upon State and Regional concurrence. The option would allow States to determine lesser or more stringent requirements based upon site specific conditions. At the same time as the regulation's proposal, clear guidance would be distributed to the States on waiver options that would be acceptable to EPA. Final negotiation of compliance particulars would be carried out by the State and the Region.

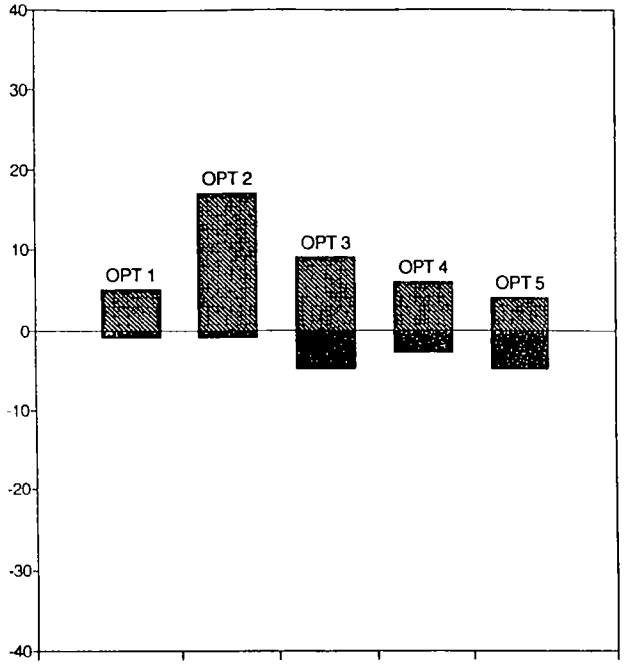
3) Eliminate waiver requirements from the regulation and move them to guidance.

4) Allow States to waive initial monitoring for VOCs. The regulations could provide criteria for granting waivers for VOCs, consistent with the type of guidance provided for granting waivers for SOCs.

5) To reduce State overhead, allow systems to submit waivers (under certain well-defined criteria) that would be automatic unless the State disapproves. The waiver would remain in force until the State rescinds it or it expires, whichever comes first.

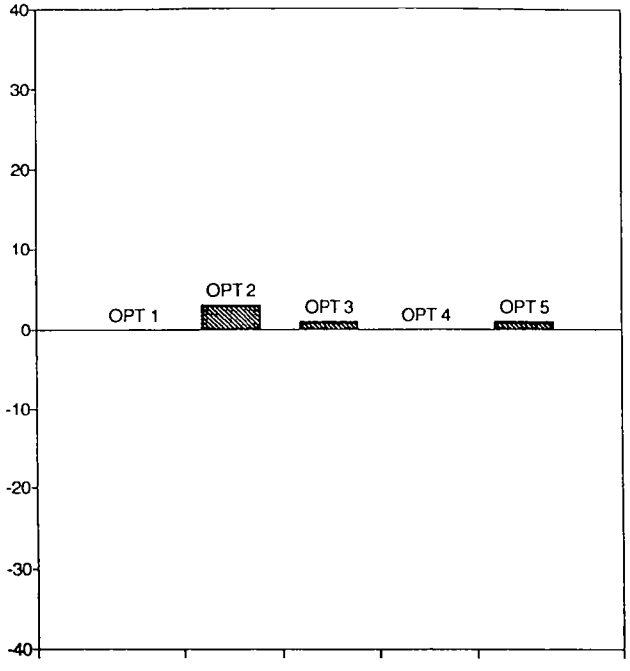
Flexibility 1

Program



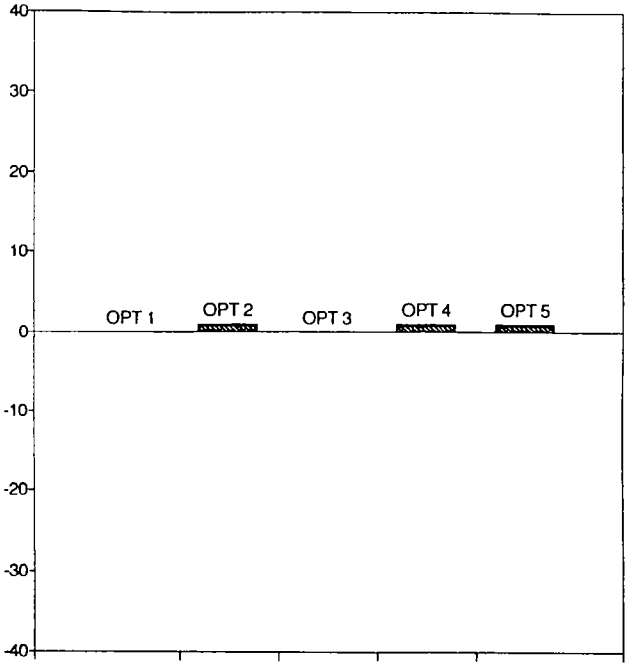
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	5	17	9	6	4
No	-1	-1	-5	-3	-5

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	3	1	0	1
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	0	1	1
No	0	0	0	0	0

Flexibility 2

Issue: Greater State flexibility in monitoring requirements would give States greater flexibility and allow water systems to have more source and treatment options and support the use of alternative technologies.

Background: Currently the regulations establish minimum monitoring requirements and sampling locations (generally source based sampling). There is no option in the existing regulation for States to modify, adapt or develop alternative requirements for small water systems that have very unique and therefore problematic sources (i.e., roof catchments, seasonal supplies, artificially stored supplies, emergency or remote systems).

Options:

1) Status quo.

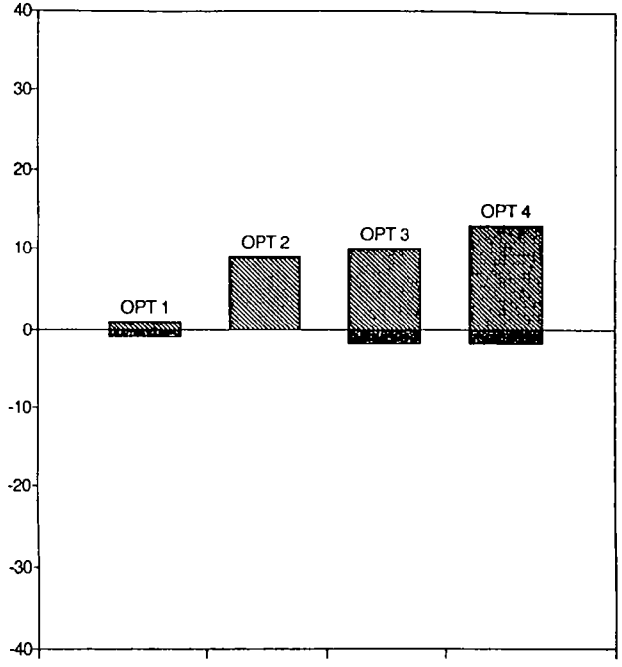
2) Do nothing to change the existing regulation, however, allow EPA to develop guidance on alternative treatments and related small source problems. EPA regions would work with states to expand existing flexibility to authorize alternative monitoring and treatment requirements. States would treat unique sources on a case-by-case basis subject to EPA approval. EPA could then direct resources to Regions and States that have unique source problems and allow them to develop an appropriate response.

3) Section 141.100 would be rewritten to include language that would allow States to develop a generic program for alternative system management of unique sources as a part of their primacy package. This would include the ability to establish alternative sampling locations, parameters, and frequencies to accommodate the unique nature of the sources. For seasonal supplies, the alterations of the monitoring schedule may be to shift from four consecutive quarters to only sampling during use period for a year. For transient and remote supplies, treatment and sampling may be point of use.

4) Revise the regulation to give individual States the direct authority to make decisions, and modify requirements related to unique sources, appropriate treatment and alternative technologies on a case by case basis.

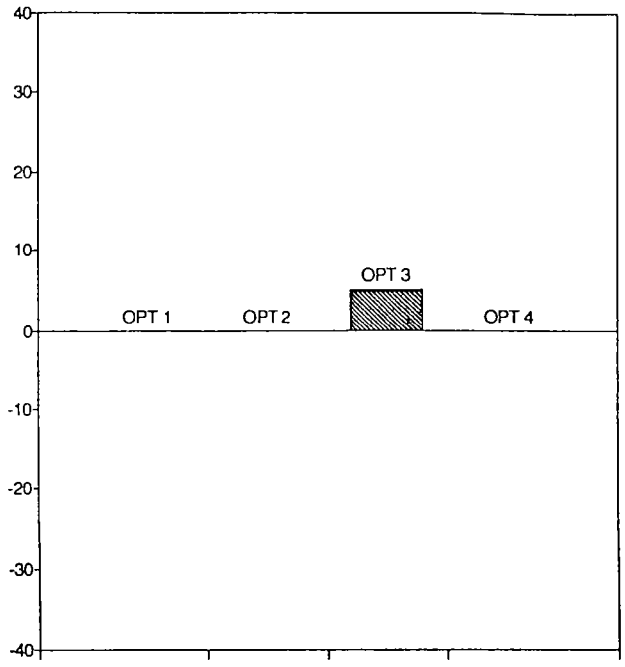
Flexibility 2

Program



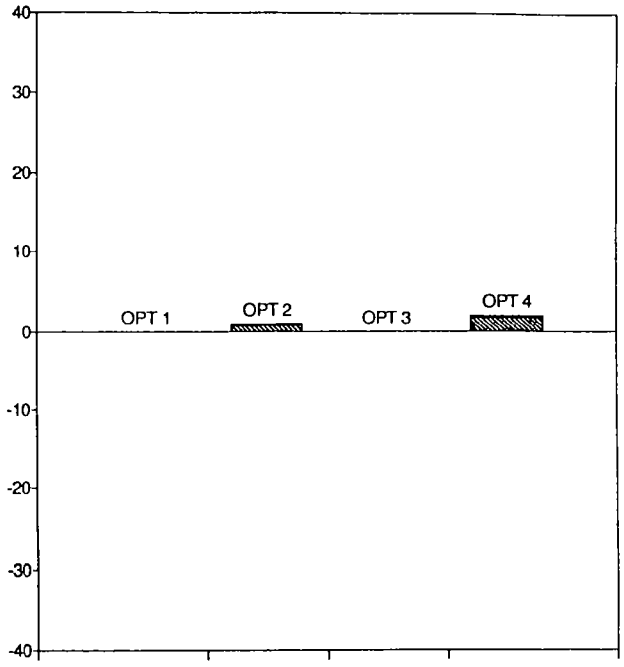
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	9	10	13
No	-1	0	-2	-2

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	0	5	0
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	1	0	2
No	0	0	0	0

Flexibility 3

Issue: Monitoring requirements should consider local conditions relating to ground and surface water.

Background: The monitoring requirements for VOCs in Paragraph 141.4(f)(11)(iii) requires systems which are monitoring annually to monitor during the quarter which had the previously highest result. However, regulations provide for systems to monitor at the time designated by the State during each compliance period (141.23(j)) and have provision for subsequent samples to be collected at the same or other points which may be more representative of the sources (141.24(f)(1) and 141.23(h)(1)).

Options:

1) Status quo.

2) Headquarters would provide guidance to regional EPA offices and States where it has been indicated that monitoring for chemical contaminants should take place during periods when the highest result is expected to occur. This monitoring would take place in the quarter which previously yielded the highest results, during the portion of the year with climatic conditions which would expect to increase to a normal level, or during a time period based on laboratory and monitoring availability if previous results indicated the contaminant level was reliably and consistently below the MCL.

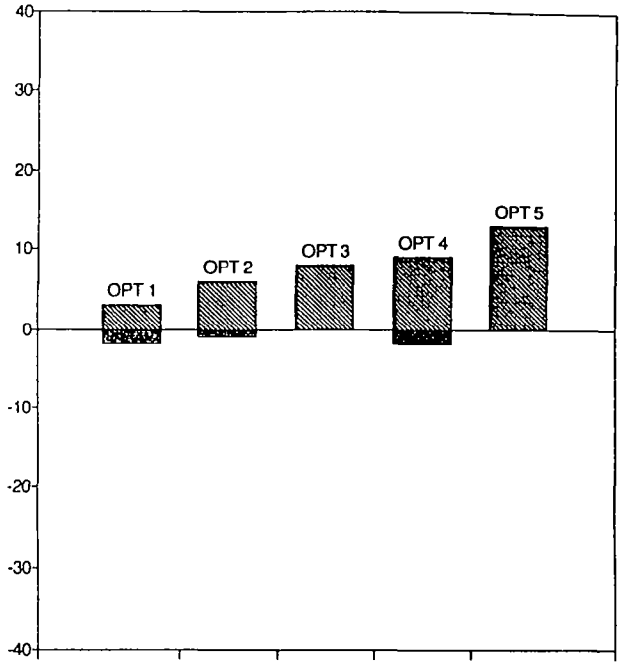
3) Regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), and 141.24(h)(7) would be rewritten to require monitoring to be conducted during the periods of highest suspected vulnerability.

4) Regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), and 141.24(h)(7) would be rewritten to give states the authority to allow systems to coordinate the timing of sampling of multiple contaminants, even if the time chosen is not expected to represent the highest point of vulnerability for each contaminant.

5) Existing regulations would be modified to expand the State's authority to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. States would have the authority and latitude to modify (subject to EPA review) base frequencies based on unique source or use conditions. Section 141.23(a)(4) would read "The State may reduce or modify the total number of samples taken or the timing of sample collection in order to reflect unique source and/or use conditions."

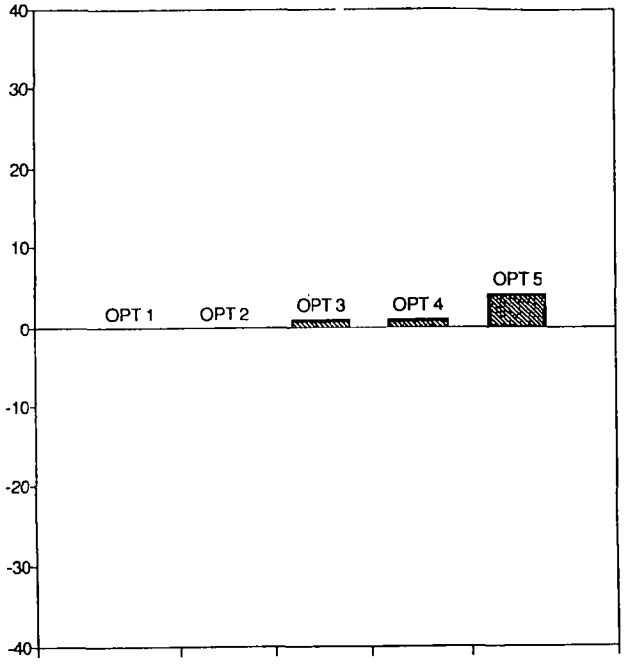
Flexibility 3

Program



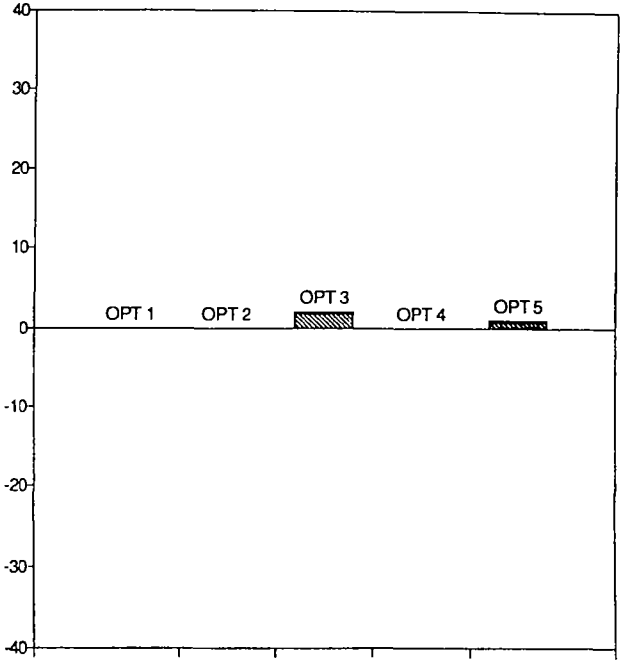
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	3	6	8	9	13
No	-2	-1	0	-2	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	1	1	4
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	2	0	1
No	0	0	0	0	0

Flexibility 4

Issue: The requirements to take four consecutive quarterly samples for regulated synthetic organic chemicals (SOCs) during the initial compliance period (January 1, 1993 to December 31, 1995) are unnecessarily excessive.

Options:

1) Status quo.

2) Non-detects after one quarter of monitoring for regulated SOCs and unregulated organic contaminants should serve as the basis for waiving the remaining quarters of the initial monitoring. Where vulnerability is expected to vary seasonally, samples should be scheduled during the time of the highest vulnerability.

3) Same as Option 2, except that initial monitoring is completed after two consecutive quarters of monitoring.

4) Go further back in time to allow grandfathering of additional data. Analytical methodology should be consistent with Phase II/V methodology.

5) Monitoring would be based on whether a system is "suspected" to be vulnerable (e.g., surface water systems, ground water under the influence, systems with nitrate levels >5 mg/L, past detects of any organic chemicals, etc.) should be required to take four consecutive quarterly samples; others would take 1 or 2 samples in the initial monitoring period.

6) Minimize re-evaluation and re-certification of waivers. One sampling event every nine years, or when the State determines conditions have changed, should be sufficient.

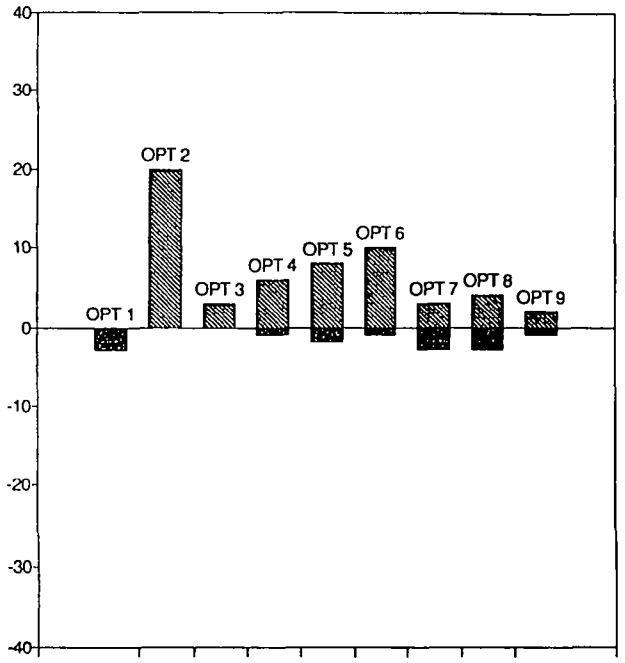
7) One quarter (highest vulnerability) of initial monitoring would be required. If there are no detects, annual sampling would continue, but in a different quarter (e.g., winter or fall). Over a 4-year period, each quarter's variation would be determined.

8) Baseline monitoring for ground water systems would be two annual samples every three years rather than four quarterly samples. Quarterly monitoring would be triggered if a detect is >50% of the maximum contaminant level (MCL).

9) Sampling requirements would remain the same for CWSs, but NTNCWSs would only take one sample during the quarter of highest vulnerability.

Flexibility 4

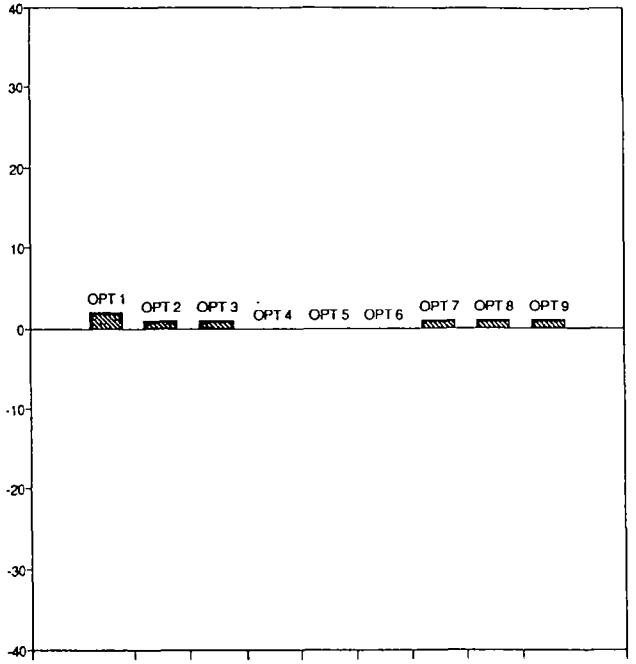
Program



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	20	3	6	8
No	-3	0	0	-1	-2

	OPT 6	OPT 7	OPT 8	OPT 9
	10	3	4	2
	-1	-3	-3	-1

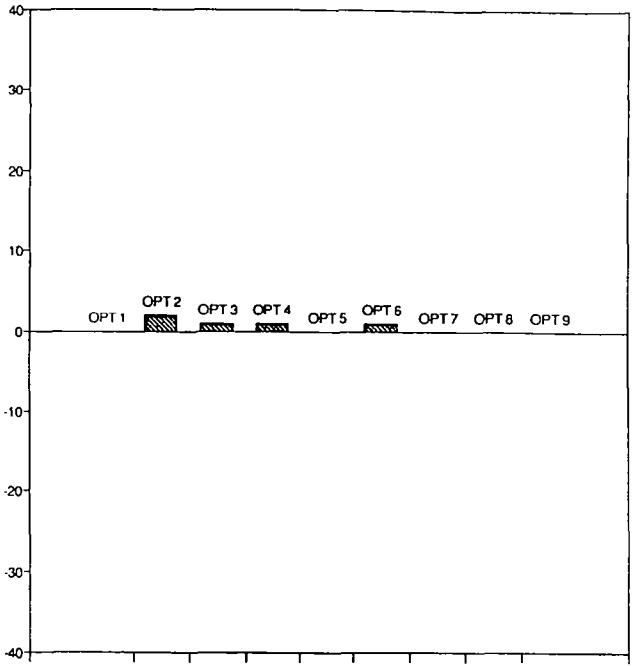
Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	2	1	1	0	0
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9
	0	1	1	1
	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	2	1	1	0
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9
	1	0	0	0
	0	0	0	0

Flexibility 5

Issue: States should have the freedom to adjust monitoring requirements to reflect changing flow or use conditions for surface water. Consecutive quarterly sampling for these unique systems are not warranted nor are they representative of conditions encountered by the consumer (seasonal use and storage, intermittent flow conditions, etc.).

Background: Regulations call for PWSs with surface water sources to sample for various contaminants with a schedule that may or may not (due to flow conditions) detect actual contamination. Strict interpretation of the base monitoring requirements may produce data that does not reflect drinking water conditions.

Options:

1) Status quo.

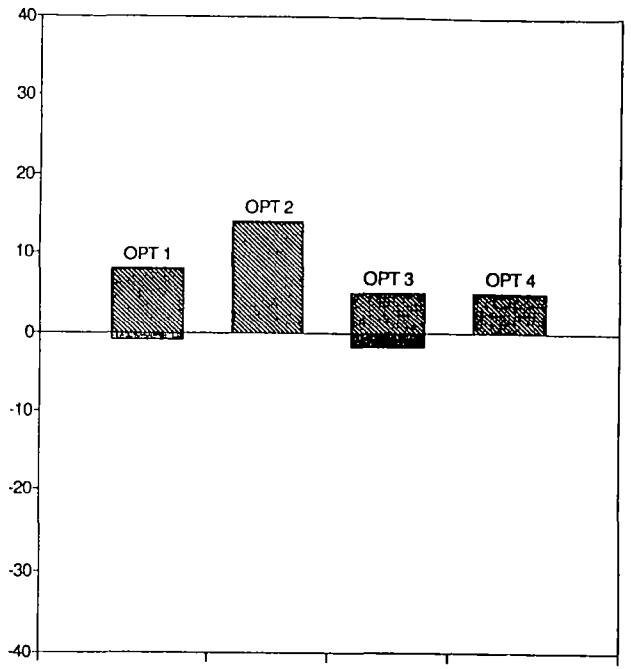
2) The State's authority would be expanded to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. States would have authority and latitude to modify (subject to EPA review) base frequencies depending on unique source or use conditions. This type of change might also fit under 141.40 (Special monitoring requirements for inorganic and organic contaminants).

3) Minimum monitoring frequency requirements would be dropped. Each section would include provisions establishing base frequencies as general guidelines. The State, as a part of its primacy package, would include their own standard monitoring protocols. With this flexibility the States would then identify groups of water systems that require specialized monitoring conditions and present them to EPA for approval. If a State's plan differed significantly from the guidelines the burden of proof would fall to the State to justify the differences. If a State chose not to develop a special conditions policy, the monitoring frequency guidelines would then become standard.

4) The existing regulation would be modified to remove the requirement of four consecutive quarterly samples and would allow the States to establish alternative schedules that would conform to flow conditions but maintain the minimum number of four samples.

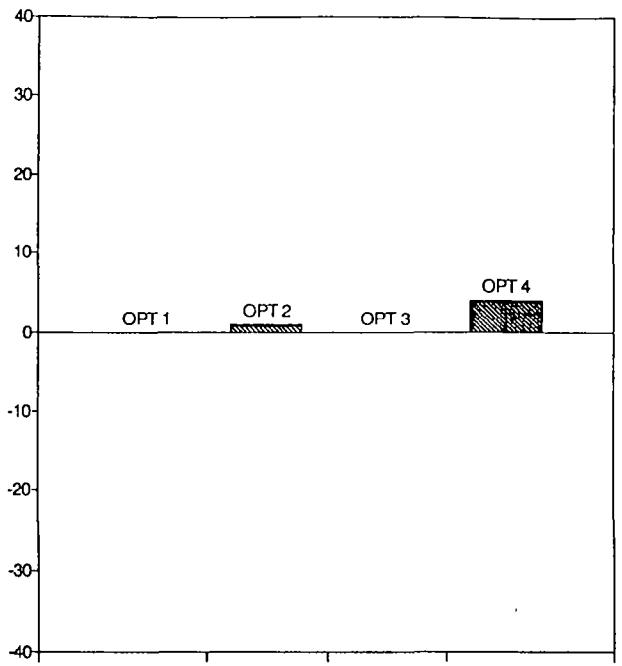
Flexibility 5

Program



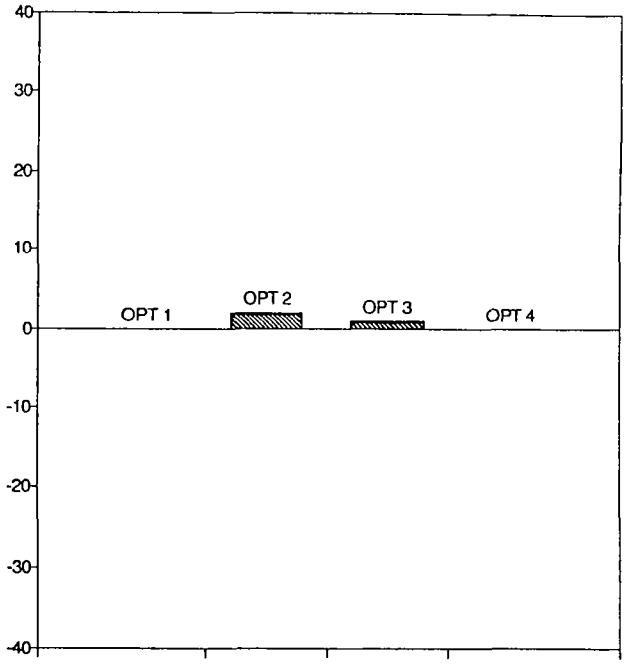
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	8	14	5	5
No	-1	0	-2	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	1	0	4
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	2	1	0
No	0	0	0	0

Flexibility 6

Issue: The current regulations do not reflect the unique implementation problems (e.g., seasonal operation, intermittent well use) associated with transient non-community water systems (TNCWS) and non-transient non-community water systems (NTNCWS). TNCWS and NTNCWS often do not have the financial resources required to meet their regulations and they have high noncompliance rates.

Background: 40 CFR 141.23 (f)(i)(1) requires that compliance for systems which monitor at a frequency greater than annually is determined by a running annual average at any sampling point. If the initial or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately. For systems that monitor annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the maximum contaminant level (MCL).

Options:

1) Status quo.

2) An outreach program would be required to educate NCWSs about their regulatory requirements.

3) The frequency of sampling would correspond to the period of highest vulnerability. Compliance calculations for seasonal NCWSs would be calculated as the average over the period the system is in operation. If the initial or a subsequent sample would cause the seasonal average to be exceeded, then the system would be out of compliance immediately.

4) Sampling would be taken at the well (since there is little or no distribution system *per se*), once during the operating season. State discretion should provide for a more stringent schedule when high potential for contamination exists.

5) Seasonal systems would sample in the quarters the system is in operation.

6) NTNCWSs would only have to monitor for acute contaminants.

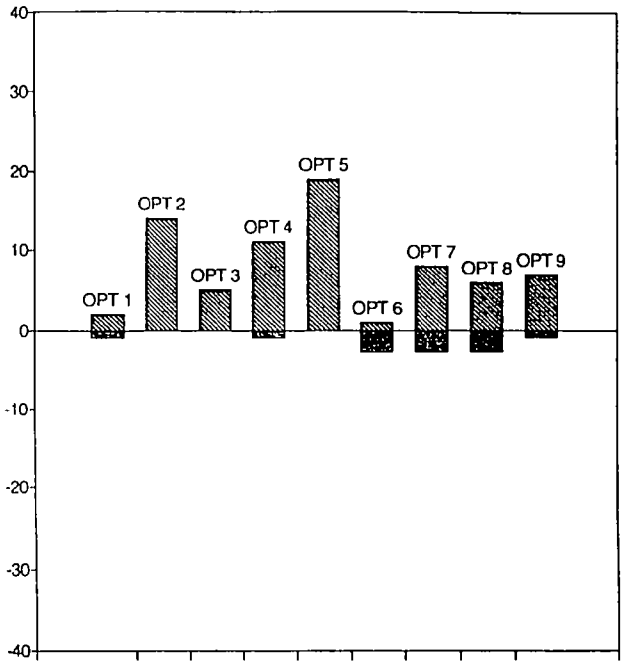
7) NTNCWSs would only have to take one sample per compliance period.

8) Waiver requirements for NTNCWSs would be made easier.

9) Alternative methods (e.g., triazine screen for SOCs) would be used to target sampling.

Flexibility 6

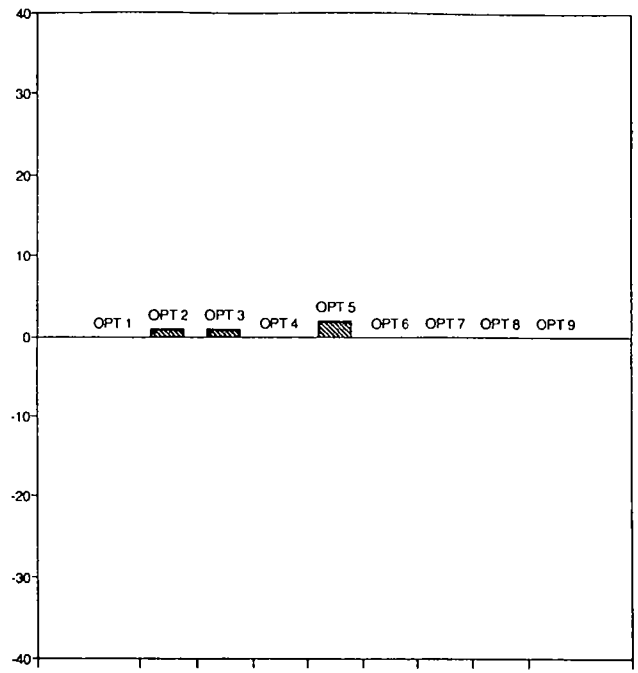
Program



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	2	14	5	11	19
No	-1	0	0	-1	0

	OPT 6	OPT 7	OPT 8	OPT 9
	1	8	6	7
	-3	-3	-3	-1

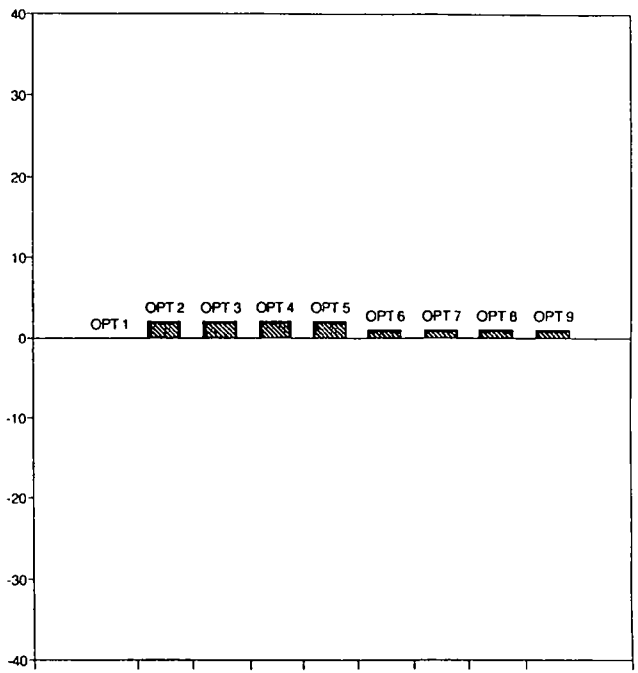
Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	1	0	2
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9
	0	0	0	0
	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	2	2	2	2
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9
	1	1	1	1
	0	0	0	0

Flexibility 7

Issue: Allow flexibility for nitrate sampling.

Background: Monitoring for nitrates is required at a minimum annual frequency and there is no provision for a reduction in monitoring frequency if nitrates are not detected. Monitoring is required quarterly if results are equal to or greater than 50% of the MCL. Monitoring may be reduced to annually after four quarters if levels of nitrates in groundwater are less than the MCL or if levels in surface water are less than 50% of the MCL.

Options:

1) Status quo.

2) Regulation 141.23(d) would be modified to allow a reduction in sampling to once each three years if monitoring conducted prior to December 31, 1992, was consistently below 50% of the MCL. In addition, a reduction in sampling frequency to once each three years would be allowed if three consecutive annual samples do not detect nitrates.

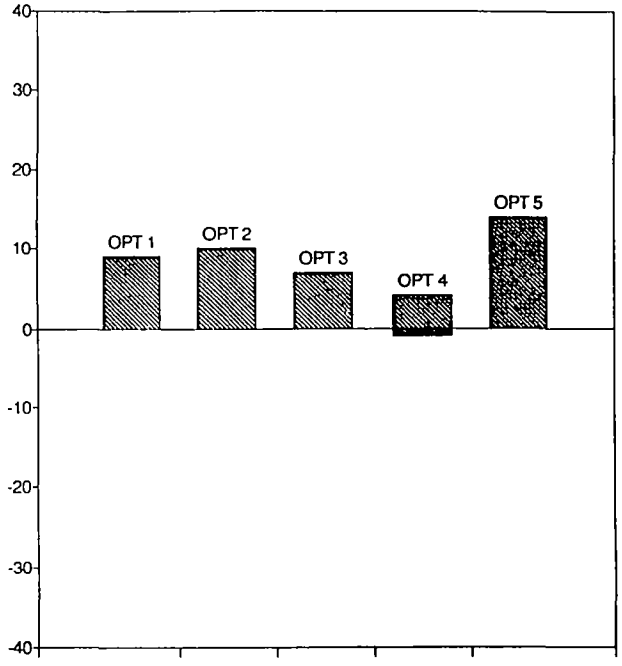
3) Regulation 141.23(d) would be modified to allow for a reduction in sampling frequency to once each three years if multi-year sampling shows a source to be reliably and consistently below the MCL.

4) Use susceptibility waivers based upon past monitoring would be allowed for nitrates.

5) Nitrate monitoring requirements would be integrated with other inorganic chemical triennial sampling based upon multi-year data which shows a consistent trend below 50% of the MCL.

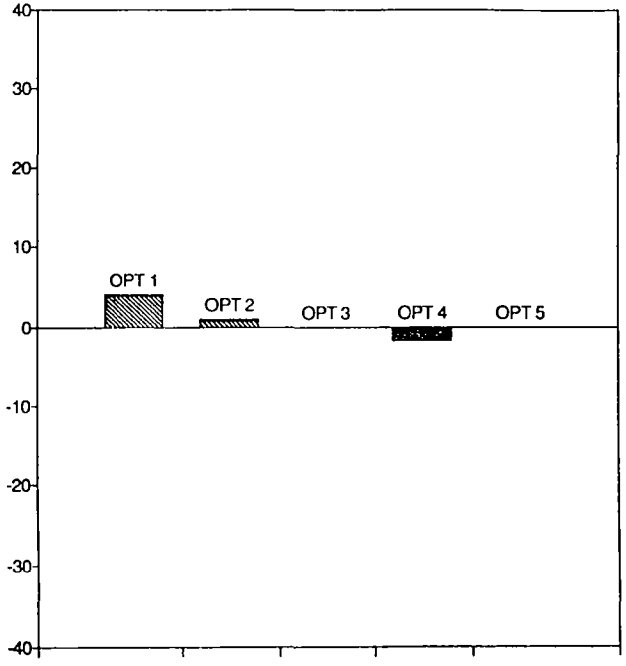
Flexibility 7

Program



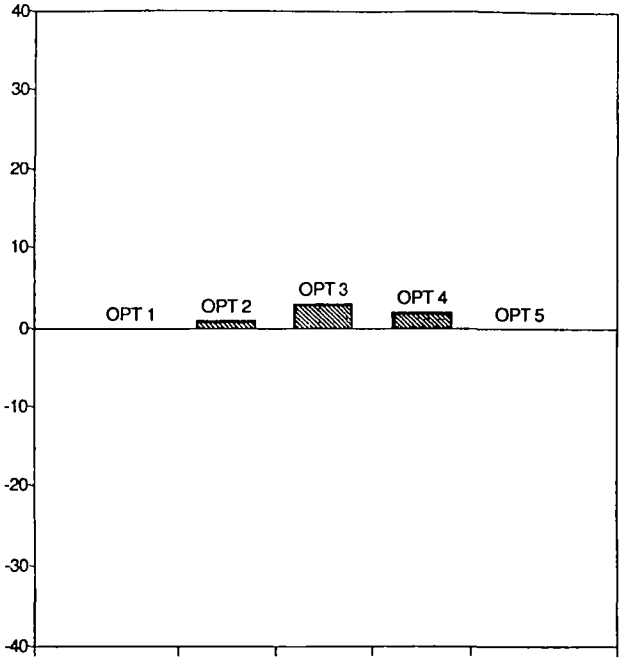
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	9	10	7	4	14
No	0	0	0	-1	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	4	1	0	0	0
No	0	0	0	-2	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	3	2	0
No	0	0	0	0	0

Efficiency

Efficiency 1

Efficiency 1 - IOCs

IOC Initial Sampling Frequency

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

Options: Initial sampling frequency for IOC's would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

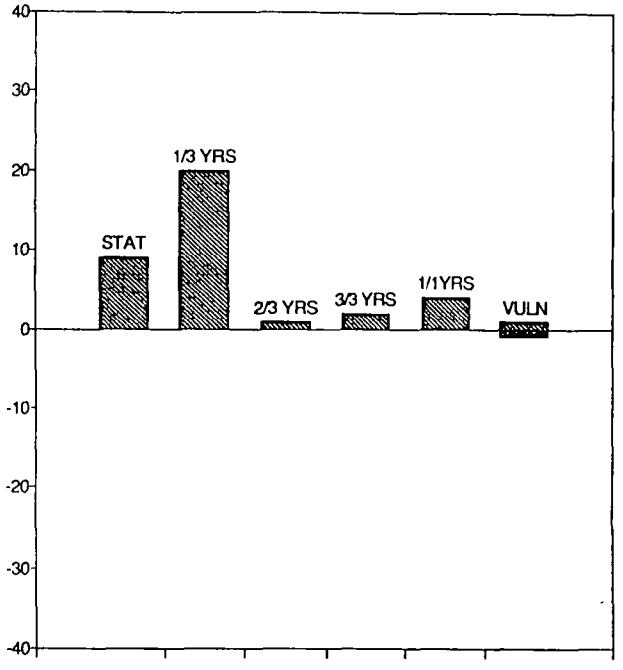
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon source awareness of vulnerability. Initial sampling frequency would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant.

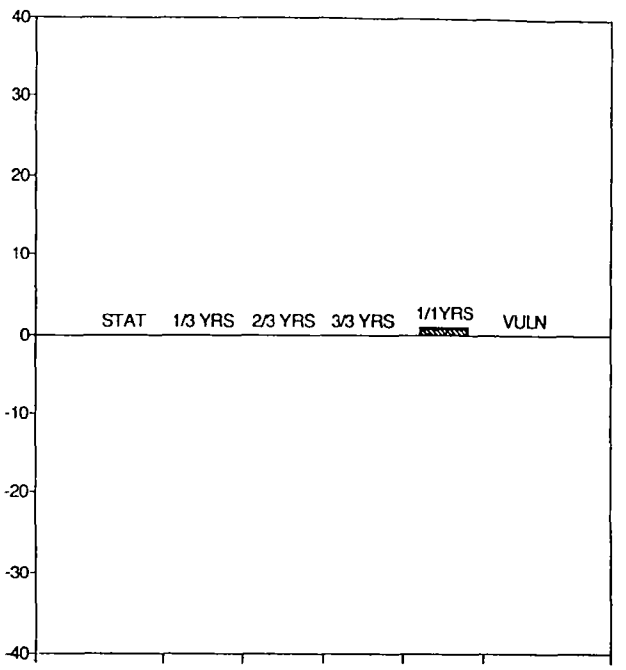
IOC Initial Sampling Frequency

Program



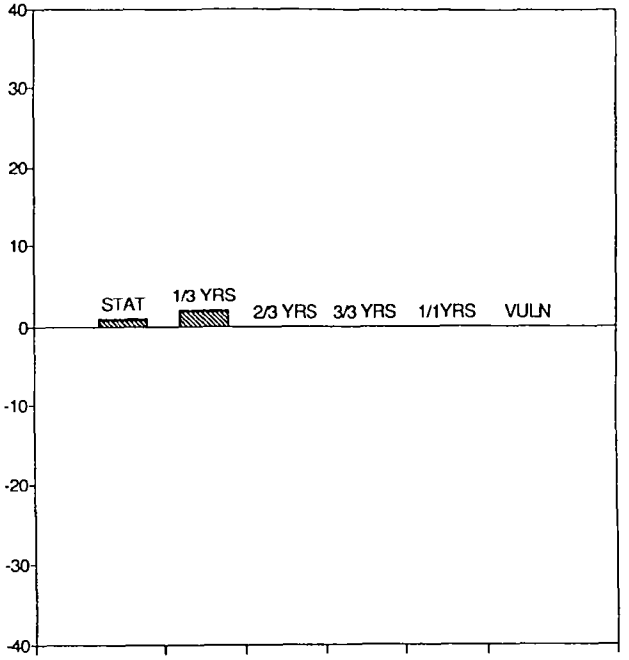
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	9	20	1	2	4	1
No	0	0	0	0	0	-1

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	1	2	0	0	0	0
No	0	0	0	0	0	0

IOC Trigger Level

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

Options: The trigger level for IOCs would be based on:

(1) Status quo.

(2) The PQL.

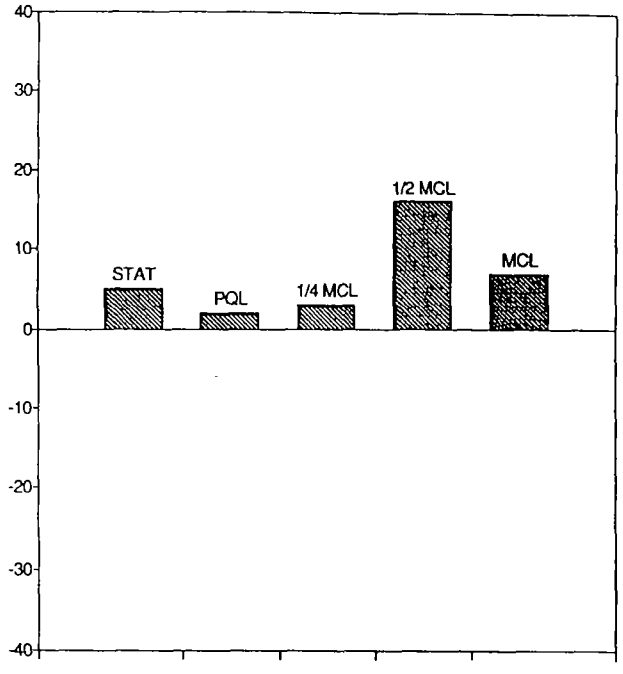
(3) One quarter of the MCL.

(4) One half of the MCL.

(5) The MCL.

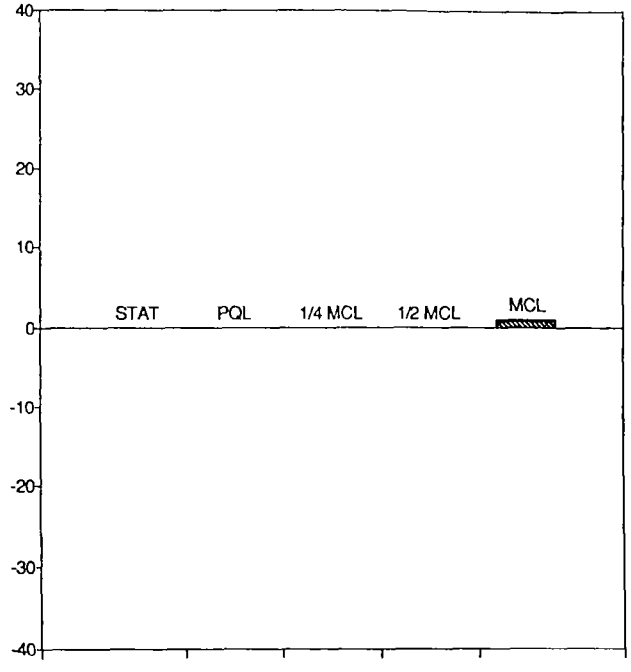
IOC Trigger Level

Program



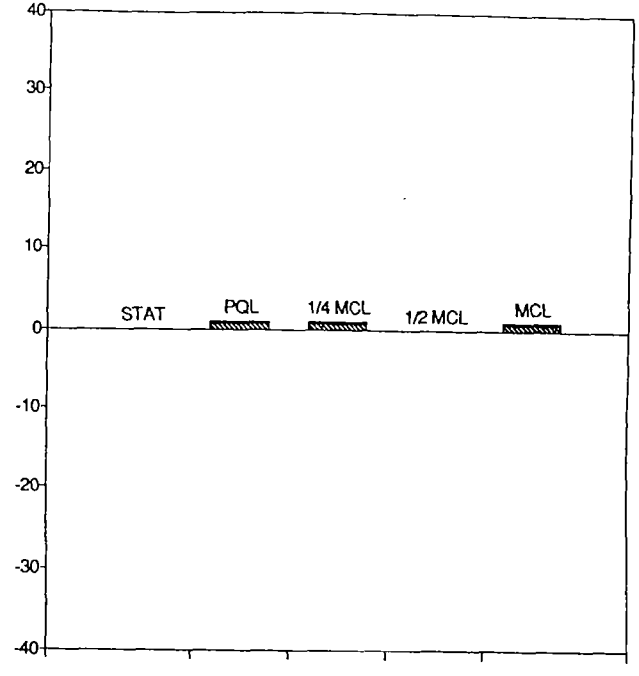
	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	5	2	3	16	7
No	0	0	0	0	0

Ground Water



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	0	0	0	1
No	0	0	0	0	0

Laboratory



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	1	2	0	1
No	0	0	0	0	0

IOC Repeat Frequency < Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

Options: The repeat frequency < the trigger level for IOCs would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

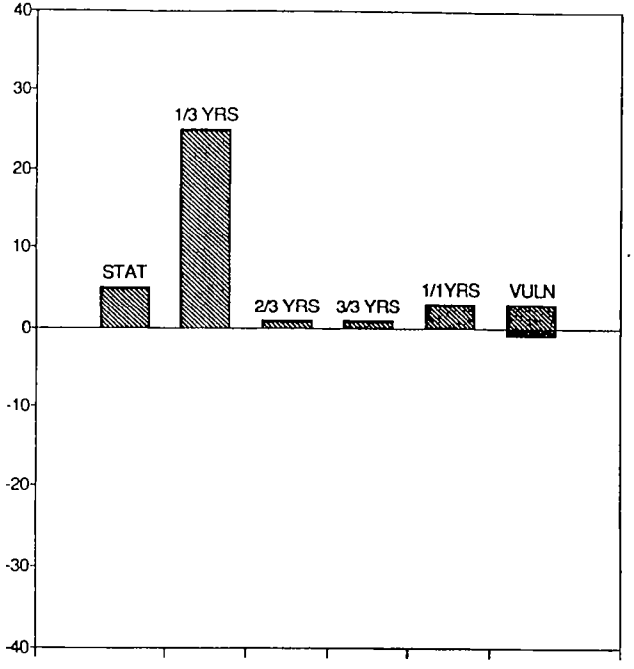
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon source awareness of vulnerability. The repeat frequency < the trigger level would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant.

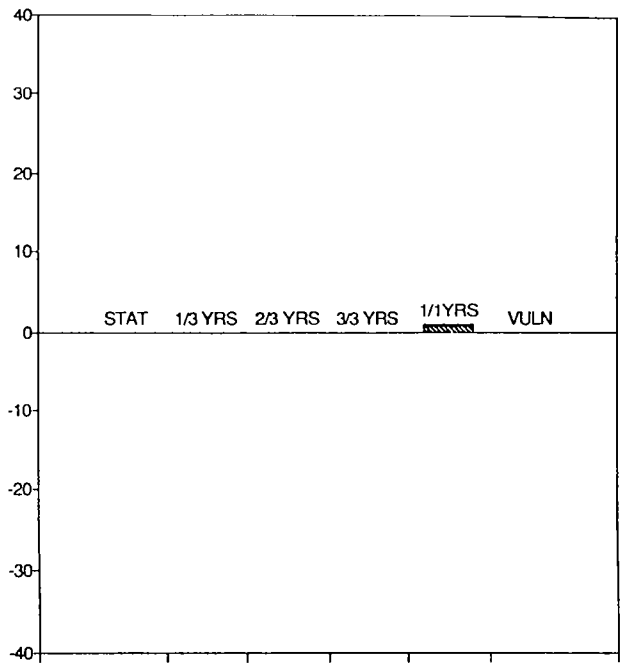
IOC Repeat Frequency < Trigger

Program



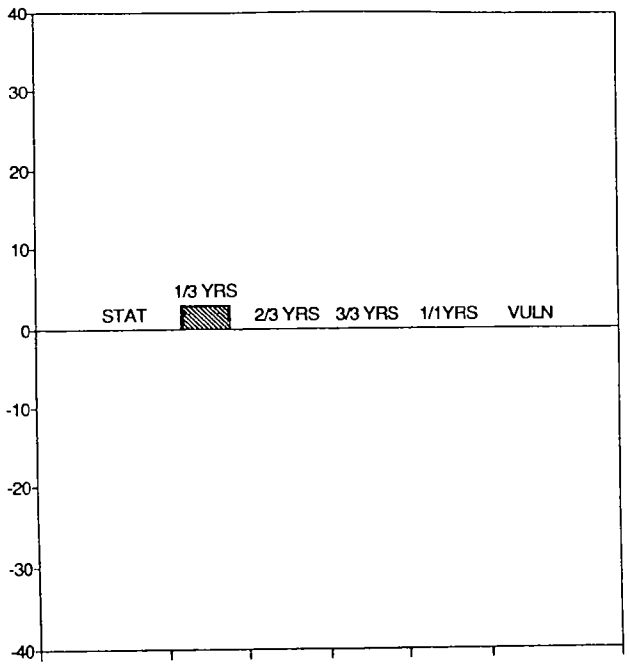
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	5	25	1	1	3	3
No	0	0	0	0	0	-1

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	3	0	0	0	0
No	0	0	0	0	0	0

IOC Repeat Frequency > Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

Options: The repeat frequency > the trigger level for IOCs would be based on:

(1) Status quo.

(2) One sample every six months.

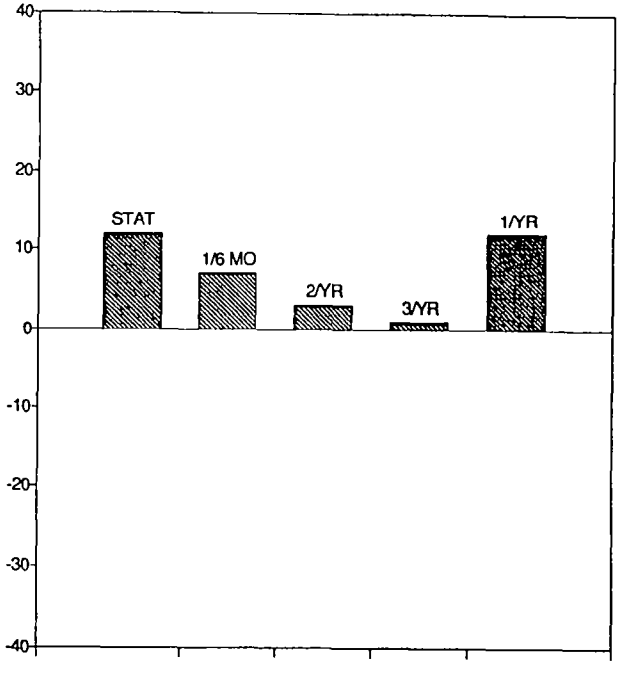
(3) Two samples every year.

(4) Three samples every year.

(5) One sample annually.

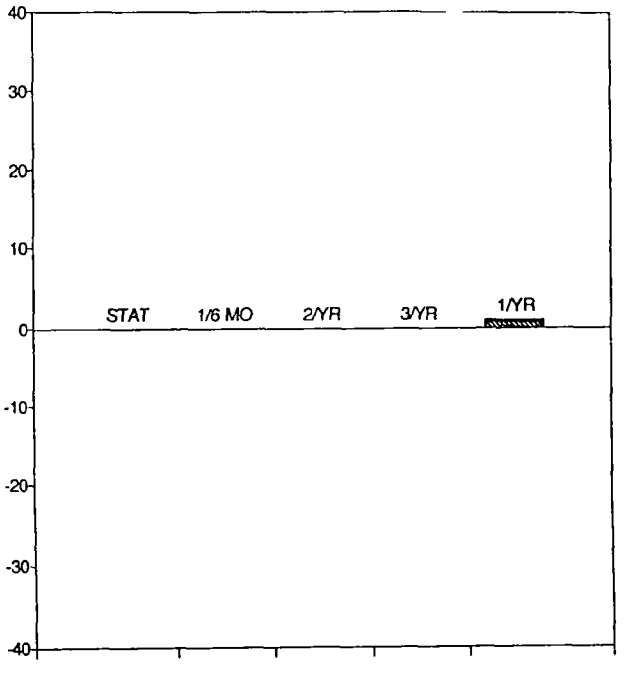
IOC Repeat Frequency > Trigger

Program



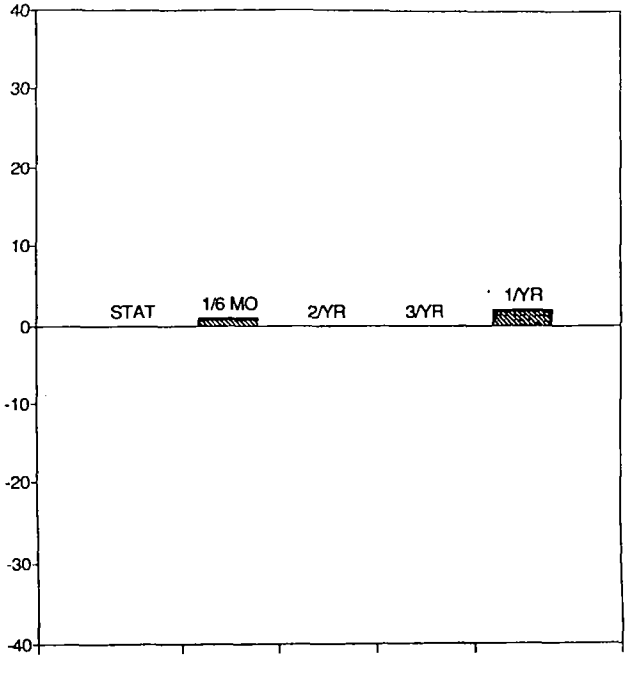
	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	12	7	3	1	12
No	0	0	0	0	0

Ground Water



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	0	0	0	1
No	0	0	0	0	0

Laboratory



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	1	0	0	2
No	0	0	0	0	0

IOC Reliably and Consistently < MCL

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements. Reliable and consistent determination requires a minimum of two quarters of monitoring for groundwater and four quarters for surface water.

Options: Reliably and consistently for IOCs would be based on:

(1) Status quo.

(2) One sample.

(3) Two samples.

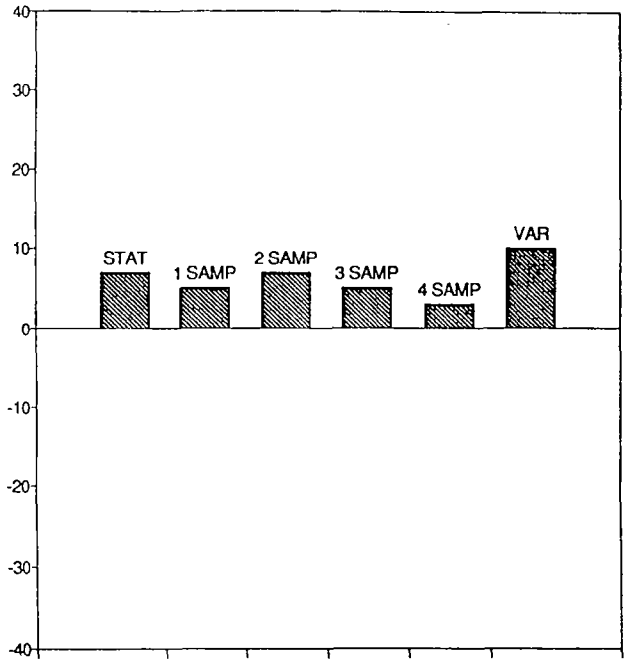
(4) Three samples.

(5) Four samples.

(6) Variable. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

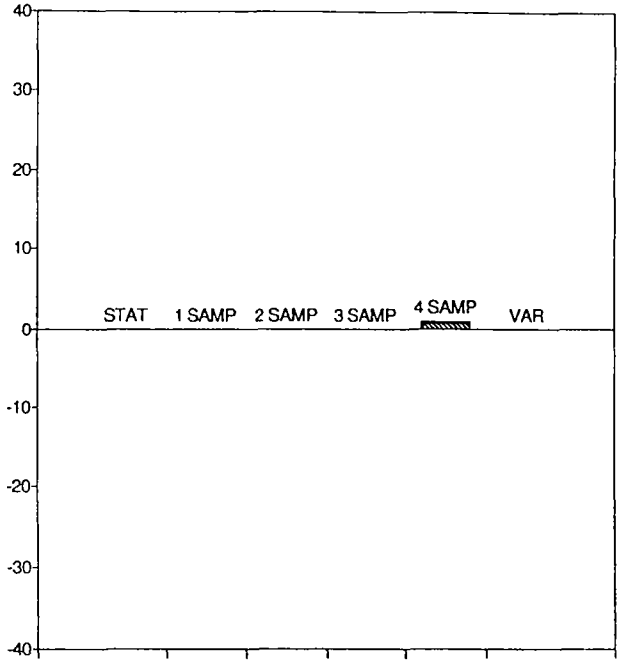
IOC Reliably and Consistently < MCL

Program



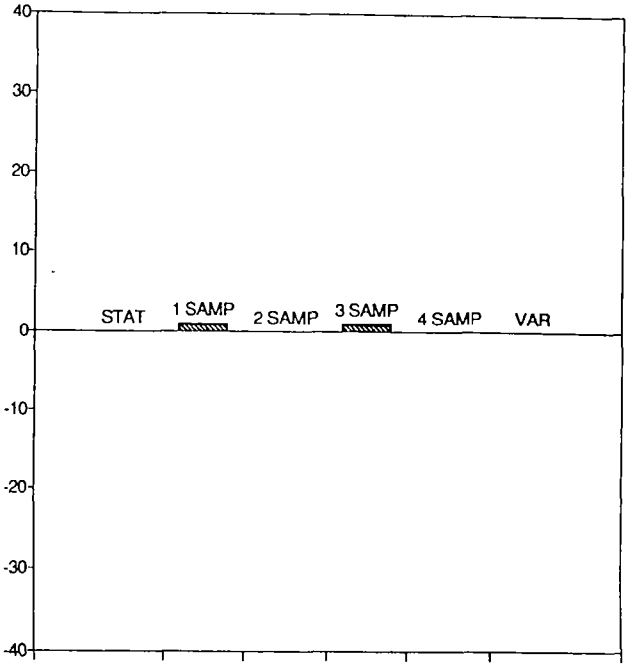
	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	7	5	7	5	3	10
No	0	0	0	0	0	0

Ground Water



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	1	0	1	0	0
No	0	0	0	0	0	0

Efficiency 1 - VOCs

VOC Initial Sampling Frequency

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

VOC monitoring is required for four consecutive quarters at each entry point during each compliance period, but may be reduced to annually if there are no detects after four consecutive quarters. After three consecutive years with no detects, monitoring may be further reduced to once every three years for ground water systems.

Options: Initial sampling frequency for VOCs would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

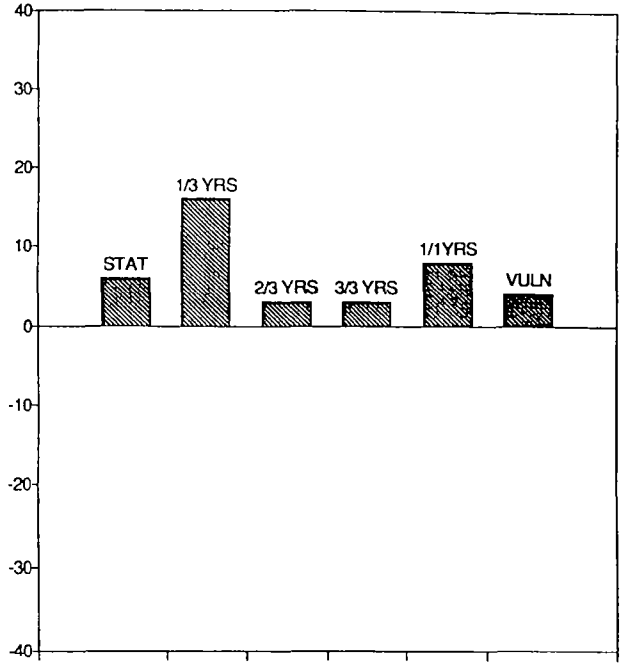
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon source awareness of vulnerability. Initial sampling frequency would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant.

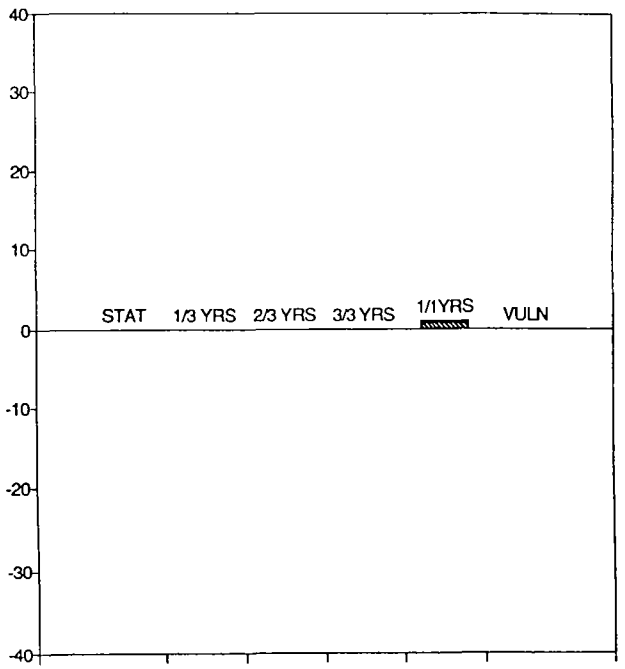
VOC Initial Sampling Frequency

Program



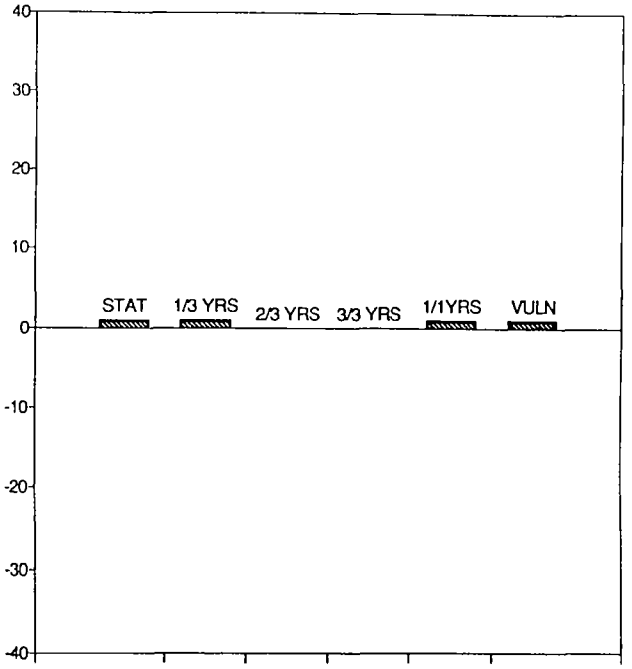
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	6	16	3	3	8	4
No	0	0	0	0	0	0

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	1	1	0	0	1	1
No	0	0	0	0	0	0

VOC Trigger Level

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

VOC monitoring is required for four consecutive quarters at each entry point during each compliance period, but may be reduced to annually if there are no detects after four consecutive quarters. After three consecutive years with no detects, monitoring may be further reduced to once every three years for ground water systems.

Options: The trigger level for VOCs would be based on:

(1) Status quo.

(2) The PQL.

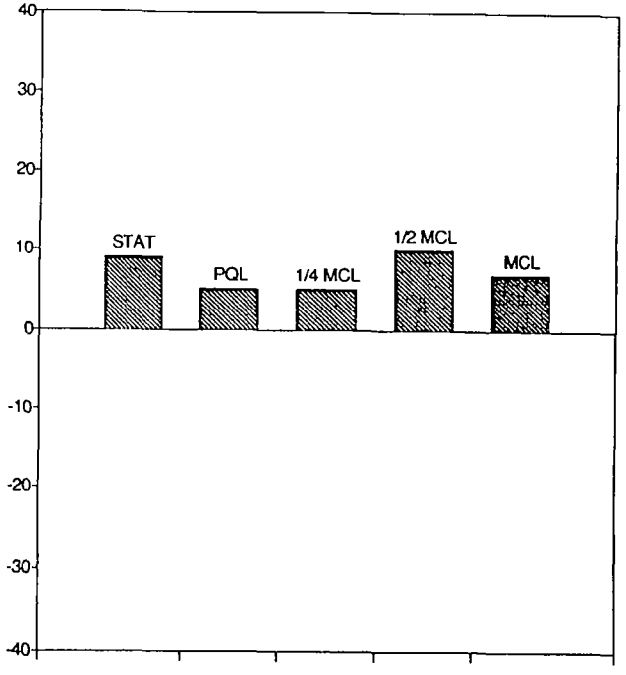
(3) One quarter of the MCL.

(4) One half of the MCL.

(5) The MCL.

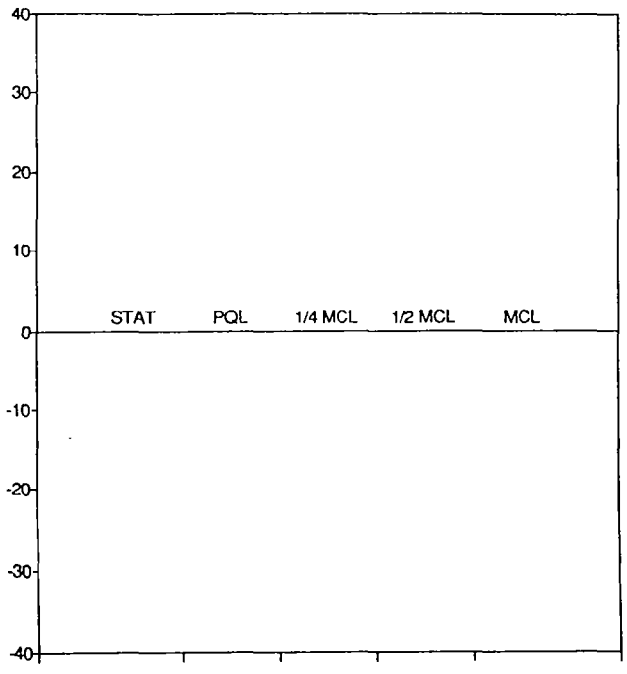
VOC Trigger Level

Program



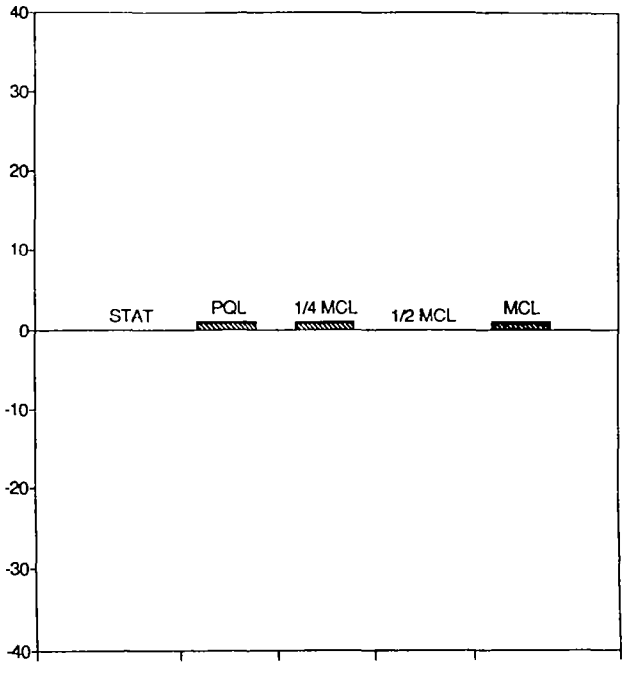
	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	9	5	5	10	7
No	0	0	0	0	0

Ground Water



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	0	0	0	0
No	0	0	0	0	0

Laboratory



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	1	1	0	1
No	0	0	0	0	0

VOC Repeat Frequency < Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required annually with provisions for further reductions or waiver applications after three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced to annual sample if the contaminant is reliably and consistently below the MCL.

Options: The repeat frequency < the trigger level for VOCs would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

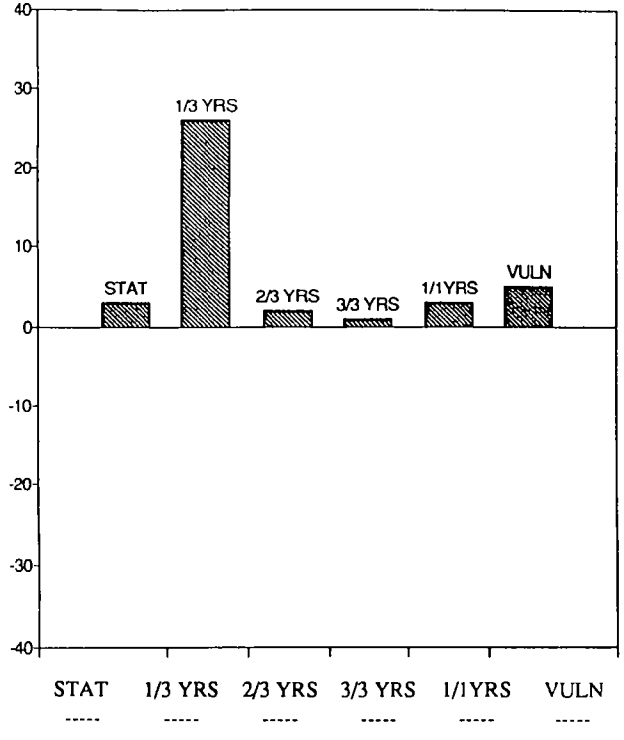
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon sources awareness of vulnerability. The repeat frequency < the trigger level would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant.

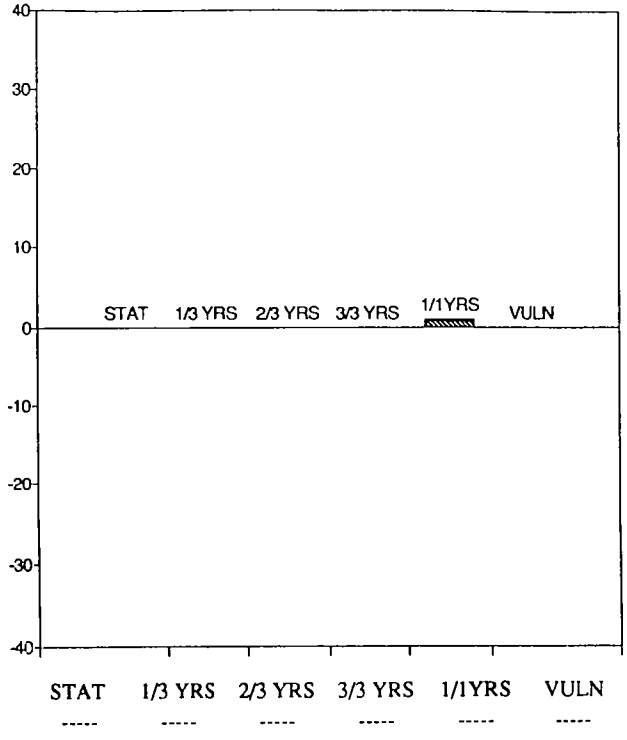
VOC Repeat Frequency < Trigger

Program



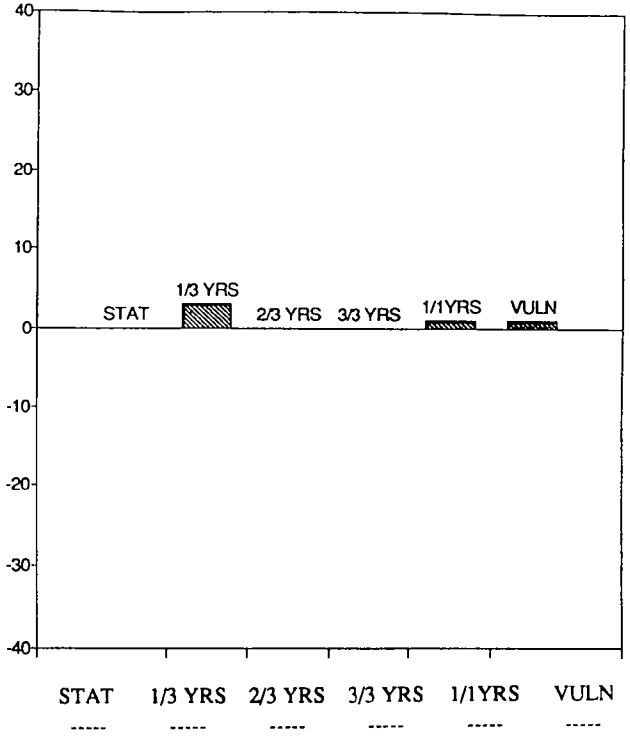
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	3	26	2	1	3	5
No	0	0	0	0	0	0

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	3	0	0	1	1
No	0	0	0	0	0	0

VOC Repeat Frequency > Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required annually with provisions for further reductions or waiver applications after three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced to annual sample if the contaminant is reliably and consistently below the MCL.

Options: The repeat frequency > the trigger level for VOCs would be based on:

(1) Status quo.

(2) One sample every six months.

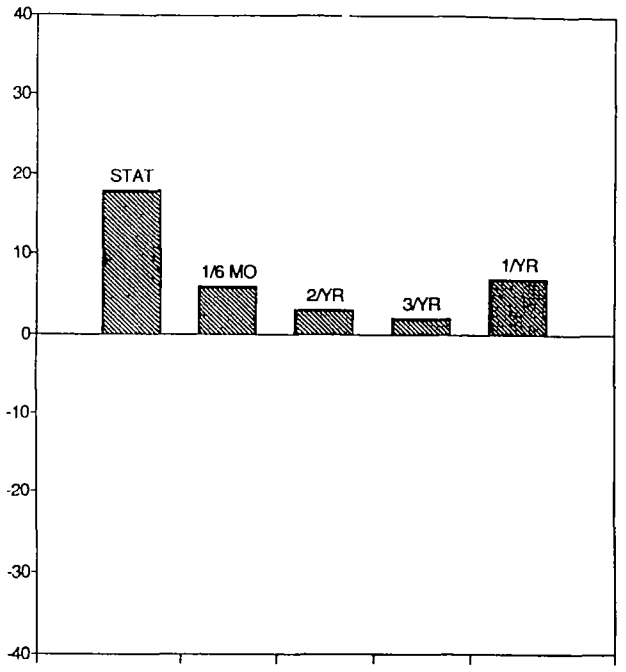
(3) Two samples every year.

(4) Three samples every year.

(5) One sample annually.

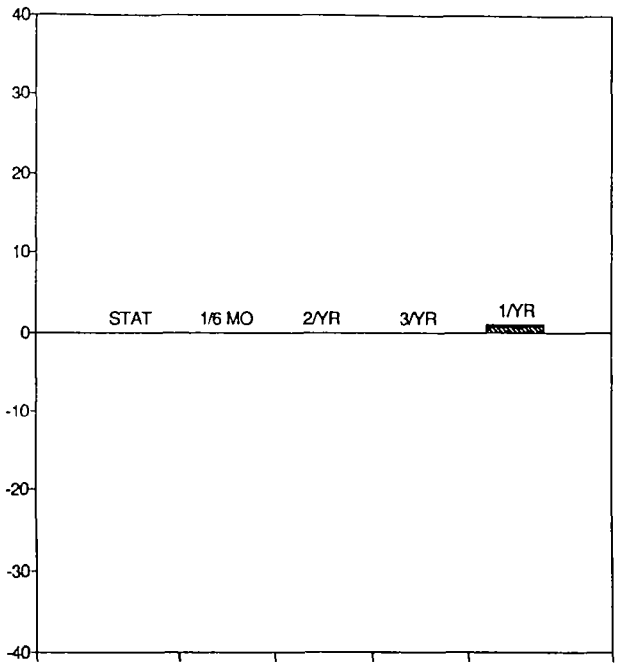
VOC Repeat Frequency > Trigger

Program



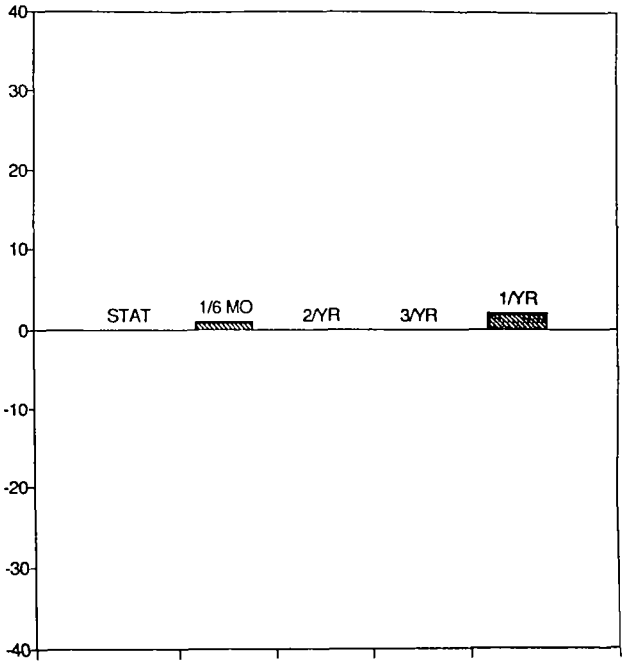
	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	18	6	3	2	7
No	0	0	0	0	0

Ground Water



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	0	0	0	1
No	0	0	0	0	0

Laboratory



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	1	0	0	2
No	0	0	0	0	0

VOC Reliably and Consistently < MCL

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required annually with provisions for further reductions or waiver applications after three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced to annual sample if the contaminant is reliably and consistently below the MCL. Reliable and consistent determination requires a minimum of two quarters of monitoring for groundwater and four quarters for surface waters.

Options: Reliably and consistently for VOCs would be based on:

(1) Status quo.

(2) One sample.

(3) Two samples.

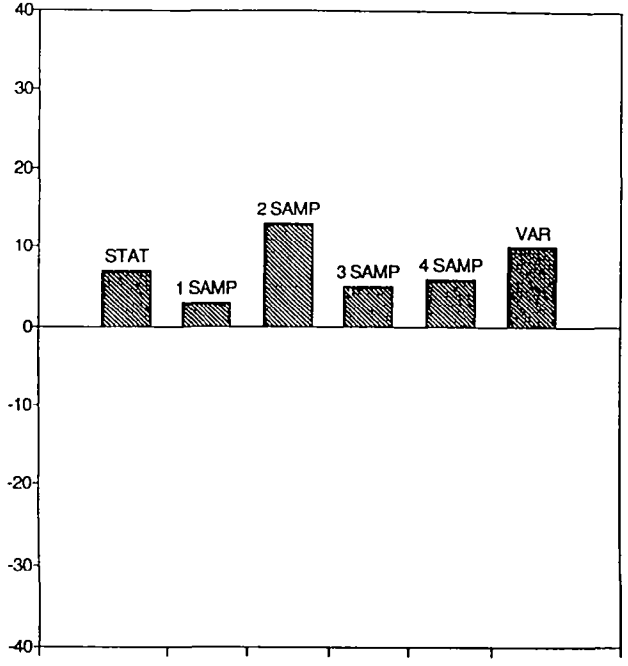
(4) Three samples.

(5) Four samples.

(6) Variable. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

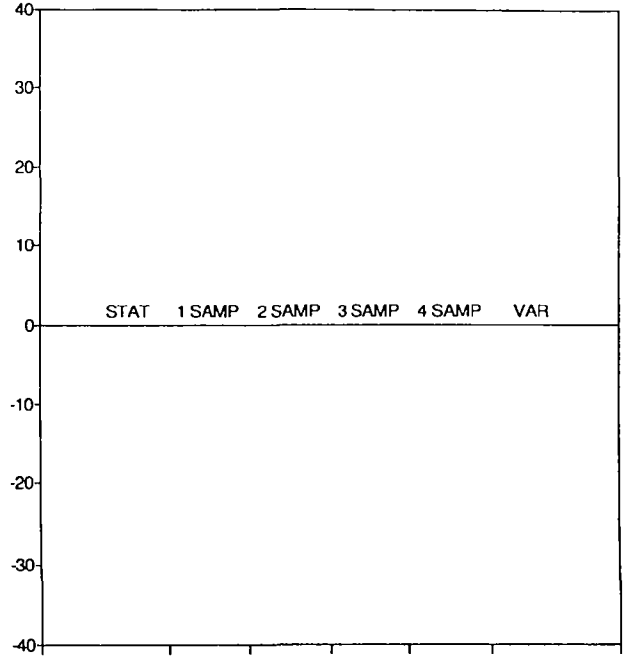
VOC Reliably and Consistently < MCL

Program



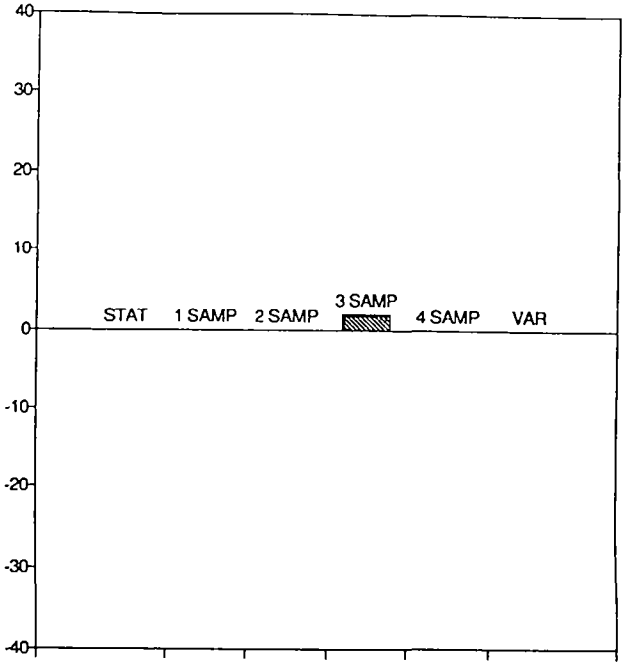
	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	7	3	13	5	6	10
No	0	0	0	0	0	0

Ground Water



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	0	0	0	0	0
No	0	0	0	0	0	0

Laboratory



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	0	0	2	0	0
No	0	0	0	0	0	0

Efficiency 1 - SOCs

SOC Initial Sampling Frequency

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

SOC monitoring is required for four consecutive quarters at each entry point during each three year compliance period. If there are no detects after four consecutive quarters, systems serving more than 3300 people may reduce monitoring to two quarterly samples per three year compliance period. Systems serving 3300 people or fewer may reduce monitoring to one sample every three years.

Options: Initial sampling frequency for SOCs would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

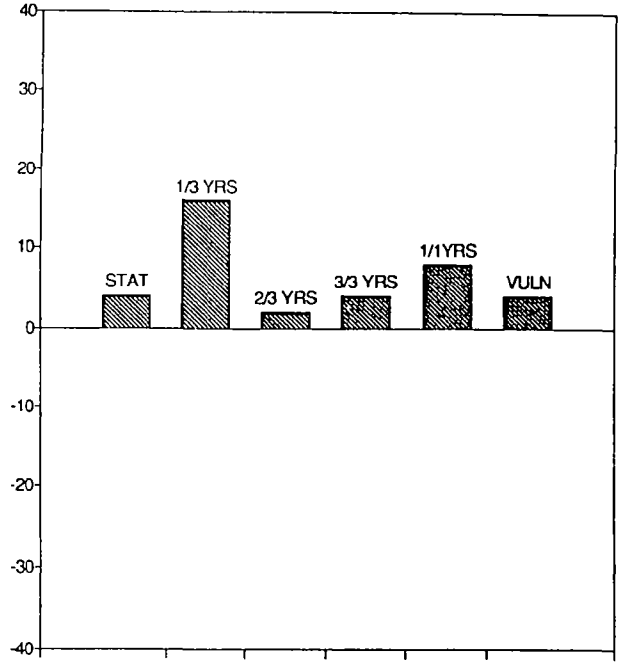
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon source awareness of vulnerability. Initial sampling frequency would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant.

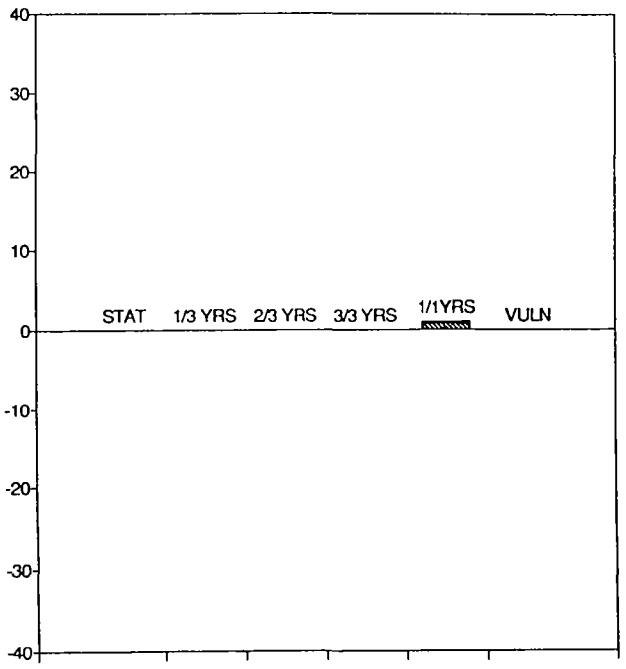
SOC Initial Sampling Frequency

Program



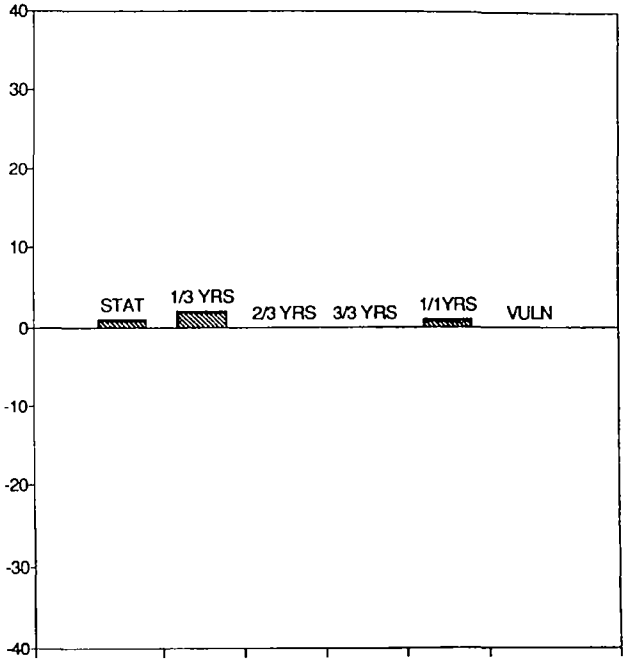
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	4	16	2	4	8	4
No	0	0	0	0	0	0

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	1	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	1	2	0	0	1	0
No	0	0	0	0	0	0

SOC Trigger Level

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

SOC monitoring is required for four consecutive quarters at each entry point during each three year compliance period. If there are no detects after four consecutive quarters, systems serving more than 3300 people may reduce monitoring to two quarterly samples per three year compliance period. Systems serving 3300 people or fewer may reduce monitoring to one sample every three years.

Options: The trigger level for SOCs would be based on:

(1) Status quo.

(2) The PQL.

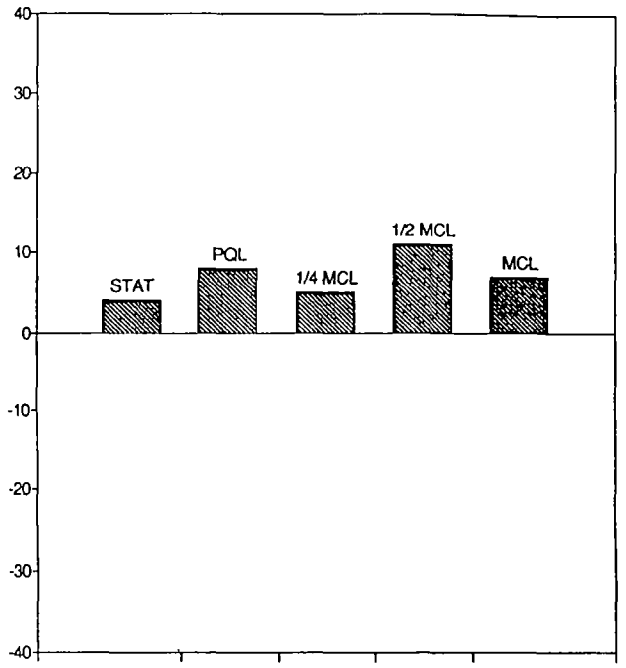
(3) One quarter of the MCL.

(4) One half of the MCL.

(5) The MCL.

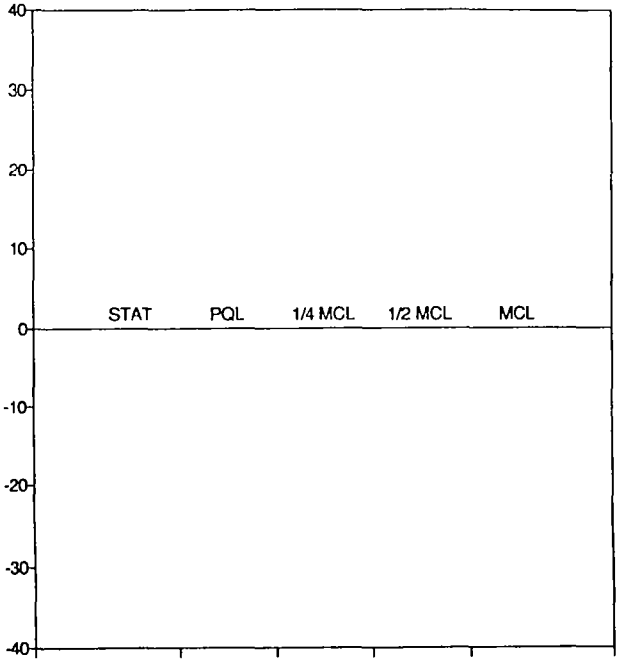
SOC Trigger Level

Program



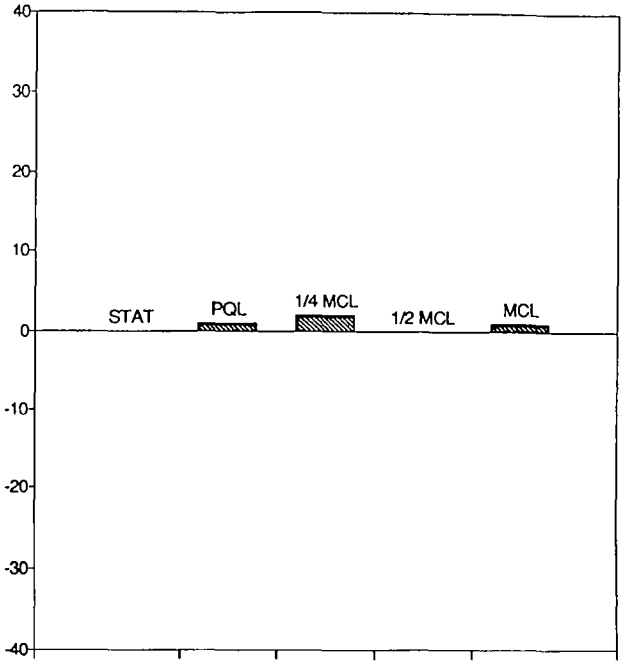
	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	4	8	5	11	7
No	0	0	0	0	0

Ground Water



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	0	0	0	0
No	0	0	0	0	0

Laboratory



	STAT	PQL	1/4 MCL	1/2 MCL	MCL
Yes	0	1	1	0	1
No	0	0	0	0	0

SOC Repeat Frequency < Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required for four consecutive quarters every three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced if the contaminant is reliably and consistently below the MCL.

Options: The repeat frequency < the trigger level for SOCs would be based on:

(1) Status quo.

(2) One sample every three years.

(3) Two samples every three years.

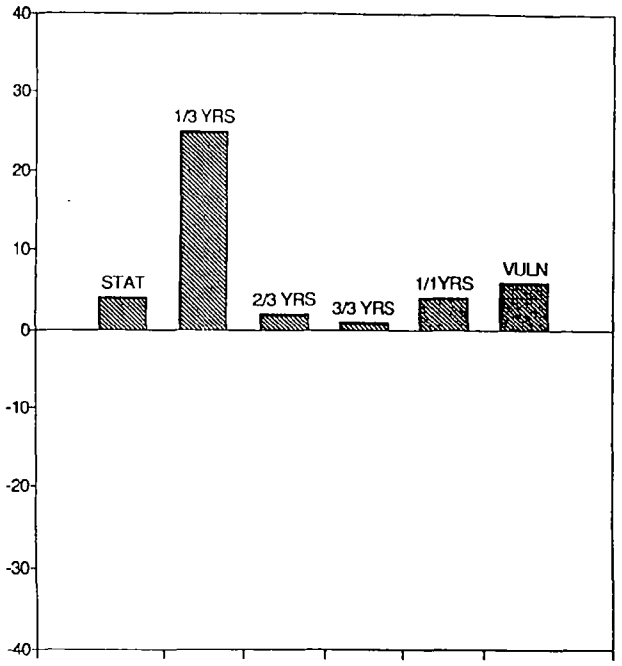
(4) Three samples every three years.

(5) One sample annually.

(6) Sample upon source awareness of vulnerability. The repeat frequency < the trigger level would be set individually for each sampling point and based on the risk of contamination at the sampling point. It assumes that, and would be conditioned upon, the existence of a State-wide vulnerability assessment for each contaminant

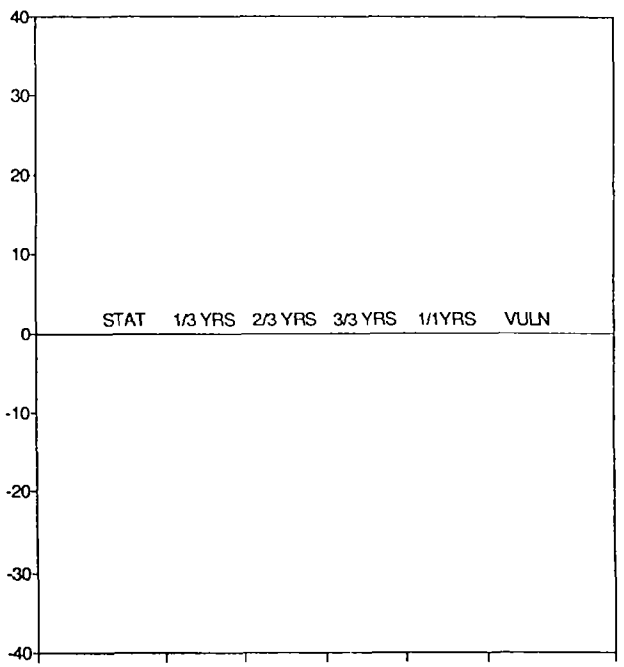
SOC Repeat Frequency < Trigger

Program



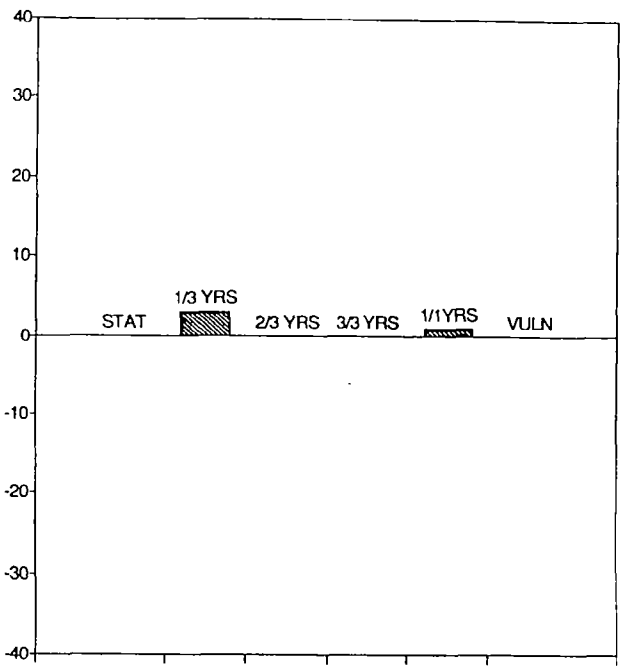
	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	4	25	2	1	4	6
No	0	0	0	0	0	0

Ground Water



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	0	0	0	0	0
No	0	0	0	0	0	0

Laboratory



	STAT	1/3 YRS	2/3 YRS	3/3 YRS	1/1YRS	VULN
Yes	0	3	0	0	1	0
No	0	0	0	0	0	0

SOC Repeat Frequency > Trigger

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required for four consecutive quarters every three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced if the contaminant is reliably and consistently below the MCL.

Options: The repeat frequency > the trigger level for SOCs would be based on:

(1) Status quo.

(2) One sample every six months.

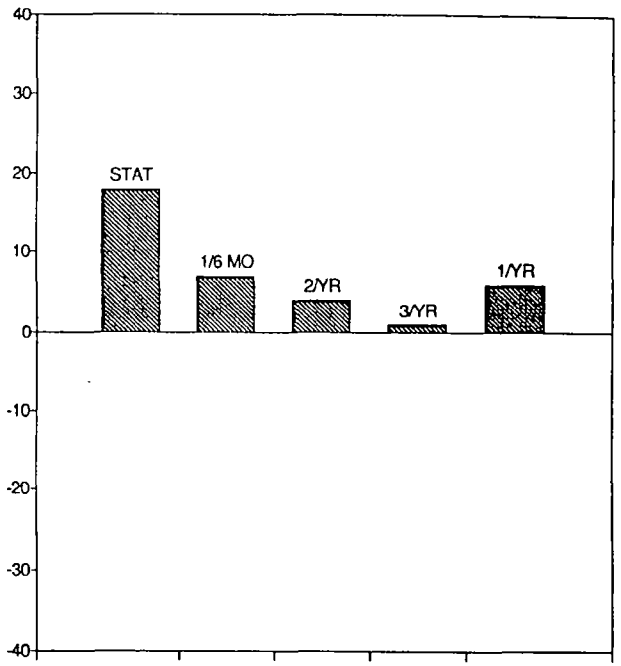
(3) Two samples every year.

(4) Three samples every year.

(5) One sample annually.

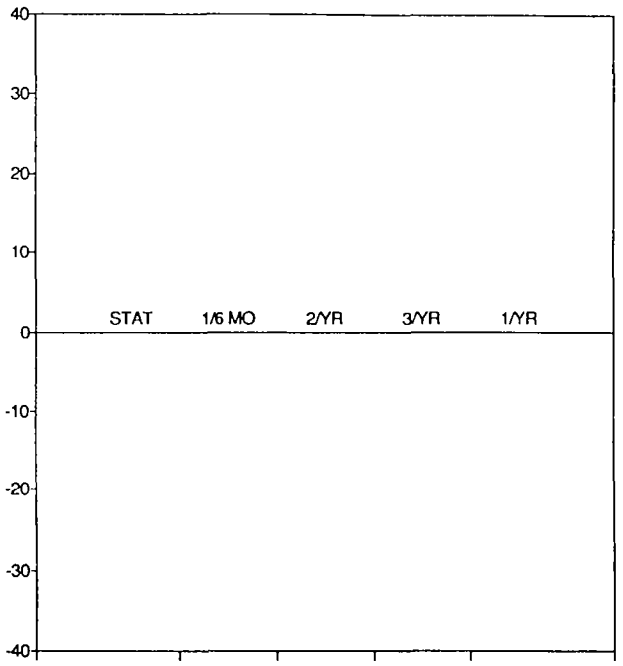
SOC Repeat Frequency > Trigger

Program



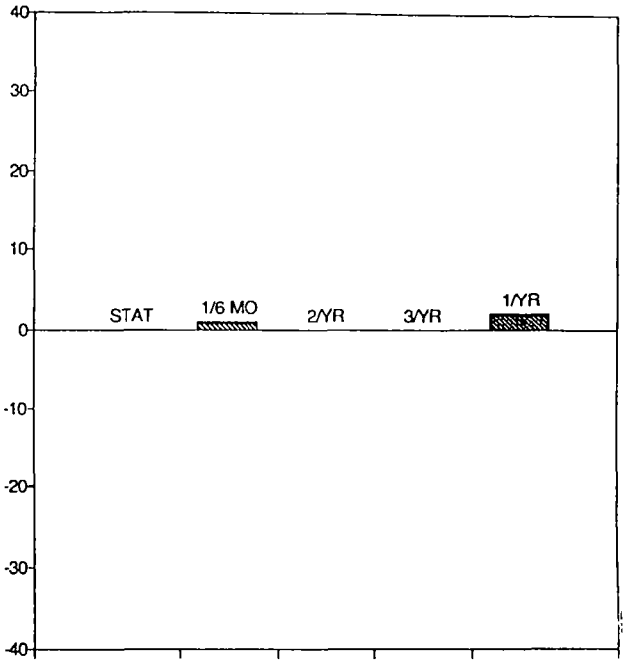
	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	18	7	4	1	6
No	0	0	0	0	0

Ground Water



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	0	0	0	0
No	0	0	0	0	0

Laboratory



	STAT	1/6 MO	2/YR	3/YR	1/YR
Yes	0	1	0	0	2
No	0	0	0	0	0

SOC Reliably and Consistently < MCL

Issue: Initial monitoring requirements presume contamination and are excessively detailed, resulting in misdirection of resources. Repeat monitoring requirements for specific circumstances have made the requirements needlessly complex.

Background: After it is determined that a system is vulnerable, three elements (initial frequency of monitoring, the trigger level which specifies a change in the frequency of monitoring, and the frequency of repeat monitoring which is based on the trigger level) are considered in setting the initial and repeat monitoring requirements.

In general, when contaminants are not detected, repeat monitoring is required for four consecutive quarters every three years. When contaminants are detected, repeat monitoring requirements provide for quarterly monitoring which may be reduced if the contaminant is reliably and consistently below the MCL. Reliable and consistent determination requires a minimum of two quarters of monitoring for groundwater and four quarters for surface waters.

Options: Reliably and consistently for SOCs would be based on:

(1) Status quo.

(2) One sample.

(3) Two samples.

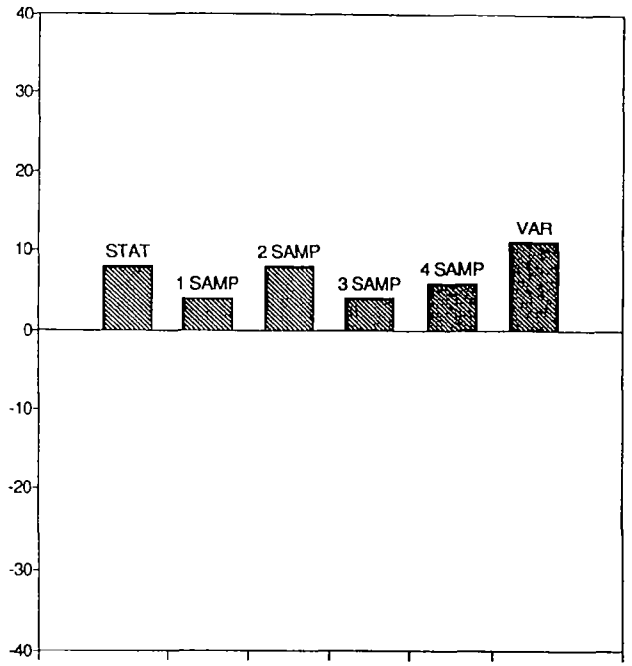
(4) Three samples.

(5) Four samples.

(6) Variable. This would be individually based on consideration of (1) the quantity of sampling data; (2) the quality of the data, including how recently the samples were taken; (3) the degree of variation in the data points; (4) how far below the MCL the data points are, and (5) the trend line of the data points.

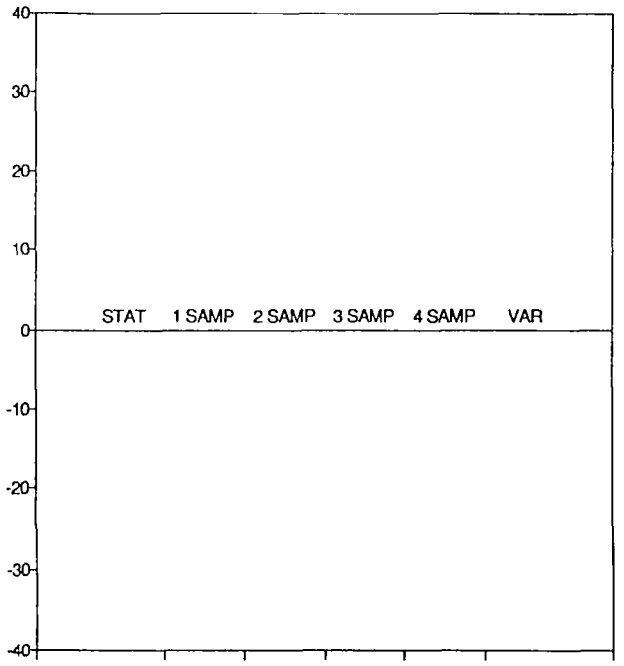
SOC Reliably and Consistently < MCL

Program



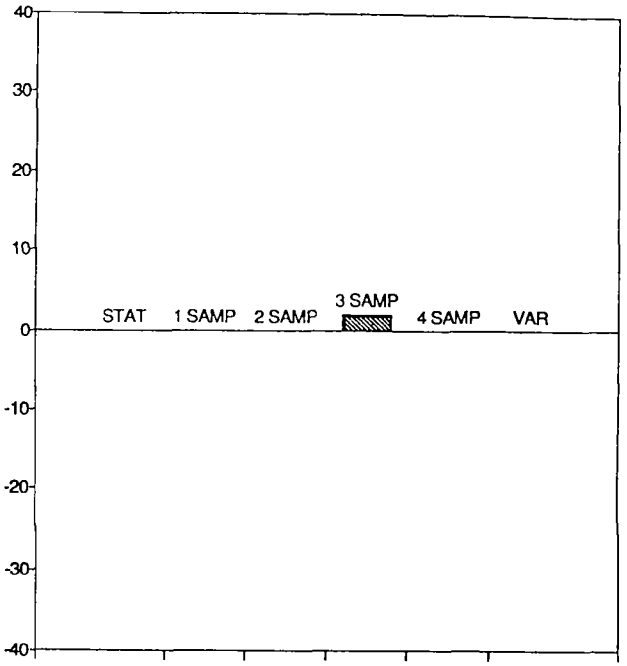
	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	8	4	8	4	6	11
No	0	0	0	0	0	0

Ground Water



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	0	0	0	0	0
No	0	0	0	0	0	0

Laboratory



	STAT	1 SAMP	2 SAMP	3 SAMP	4 SAMP	VAR
Yes	0	0	0	2	0	0
No	0	0	0	0	0	0

Efficiency 2

Issue: Reduce the cost and effort required to grant monitoring waivers for inorganic contaminants by allowing automatic reduction of sampling frequencies for IOCs.

Options:

1) Status quo.

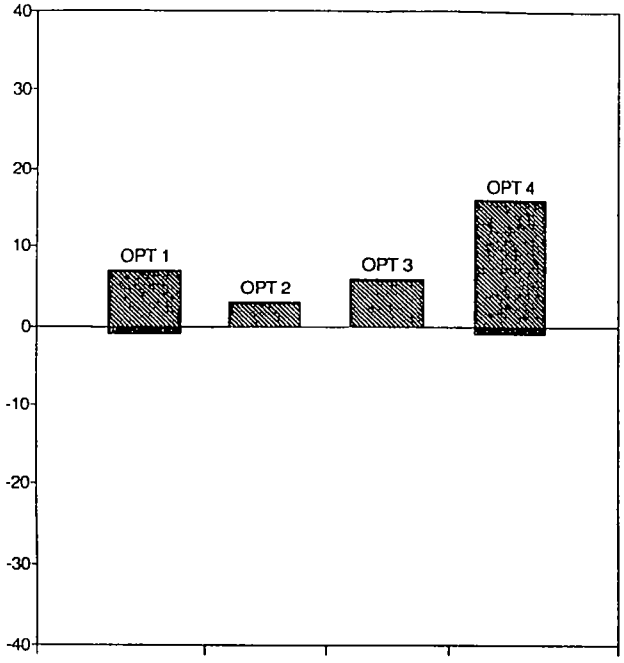
2) Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 20% of the MCL, there are a minimum of three data points, and the most recent sample results are less than three years old.

3) Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 50% of the MCL, there are a minimum of five data points, and the most recent sample results are less than three years old.

4) Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if they meet the requirements of either option 2 or option 3.

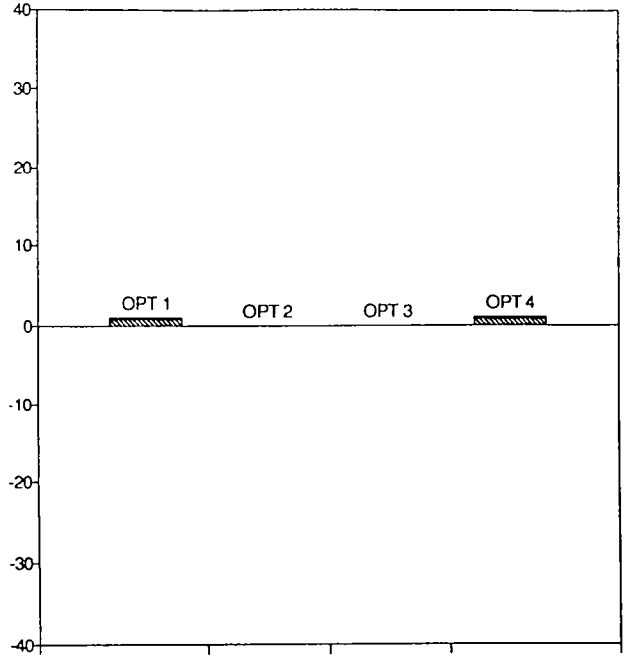
Efficiency 2

Program



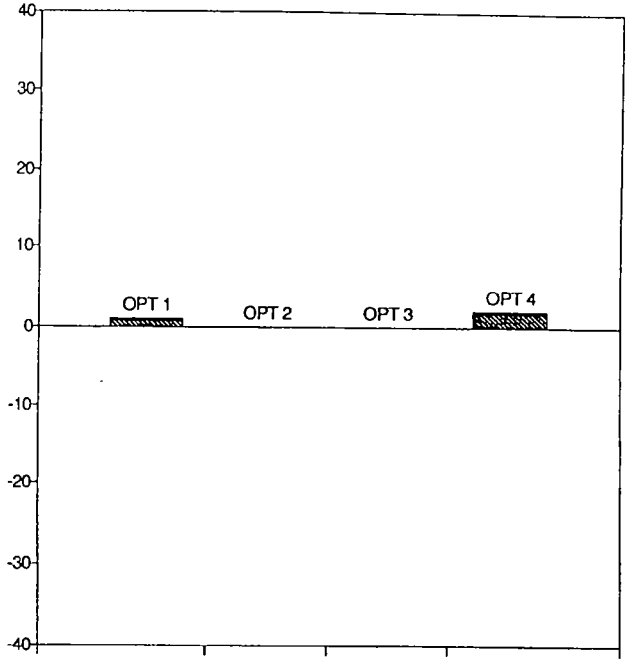
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	7	3	6	16
No	-1	0	0	-1

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	0	0	1
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	0	0	2
No	0	0	0	0

Efficiency 3

Issue: VOC requirements for small systems (population less than or equal to 3,300) should be reduced. In 1991 these systems took four samples. The VOC monitoring and waiver requirements found in 40 CFR 141.24(f) apply to community water systems (CWSs) and non-transient non-community water systems (NTNCWSs). They do not make a distinction between systems based on the size of the population served.

Options:

1) Status quo.

2) Keep the Standardized Monitoring Framework (SMF) but simplify the monitoring and waiver requirements for VOCs. Use existing data and initial monitoring as a screen. Systems with no detects would monitor at frequencies based on (1) the level of review undertaken by the State, and (2) the population served (systems serving populations >3,300 and systems serving populations <3,300). Based on the level of review, systems would be categorized as "vulnerable" (no State review other than monitoring), "non-vulnerable" (some review), and "full waiver" (as described by 141.24 (f)(8)).

3) Repeat monitoring requirements for small systems would be reduced from annual sampling to one sample every three years.

4) Systems serving populations <500 with no detects of any VOCs in the initial monitoring would not be required to conduct any additional monitoring.

5) Reduced VOC monitoring would not be limited to small systems. Monitoring once every three years would be adequate for any size system with no detects.

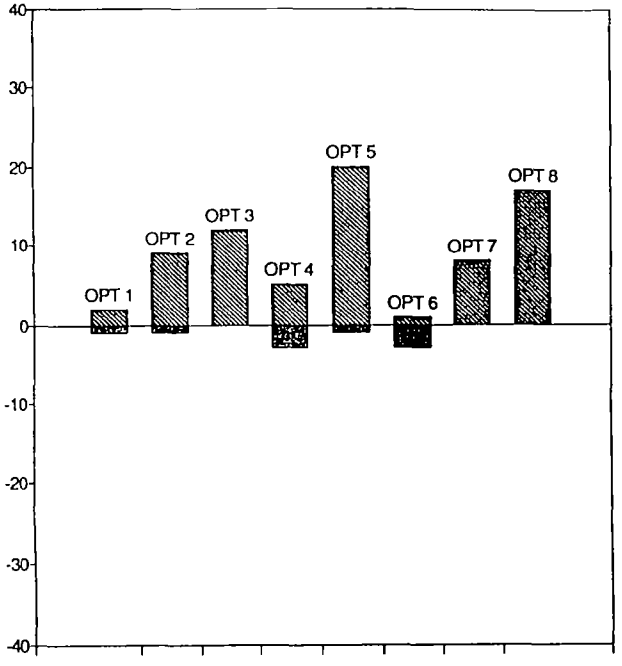
6) Systems which do not detect unregulated VOCs in the initial Phase II or V would never have to sample for unregulated VOCs.

7) The response time for follow-up if a contaminant is detected in a composite sample would be based on whether the amount detected exceeds a certain level. If the level in the composite sample is below a certain amount then a state would have more time (e.g., one year) to respond. Initial monitoring could then be in the first year, and follow-up in the second.

8) If quarterly sampling conducted prior to January 1, 1993, shows no detects, the VOC monitoring during the initial compliance period would be reduced to one sample every three years.

Efficiency 3

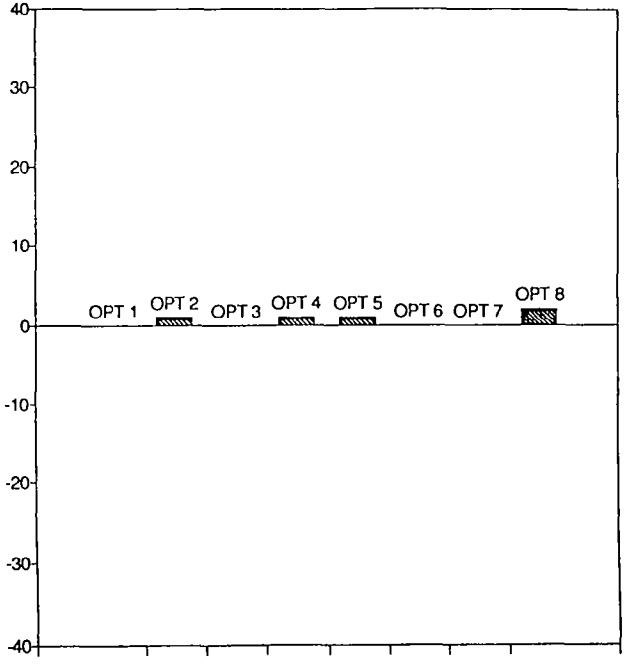
Program



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	2	9	12	5	20
No	-1	-1	0	-3	-1

	OPT 6	OPT 7	OPT 8
Yes	1	8	17
No	-3	0	0

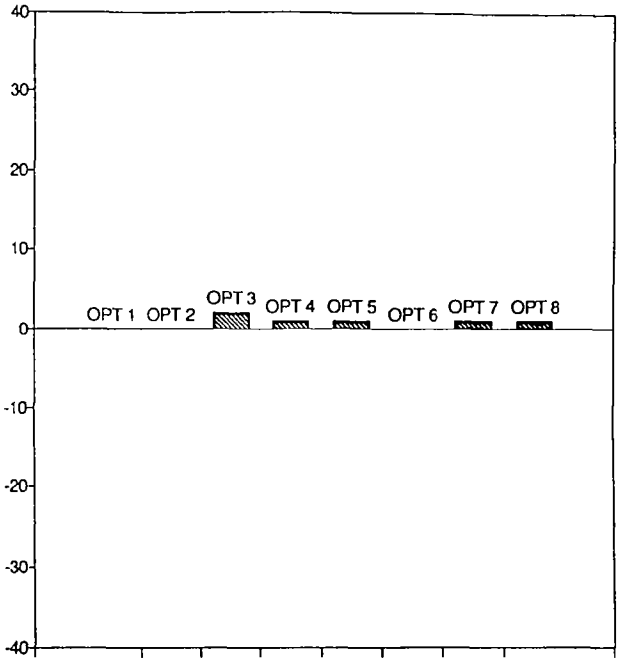
Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	0	1	1
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8
Yes	0	0	2
No	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	2	1	1
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8
Yes	0	1	1
No	0	0	0

Efficiency 4

Issue: SOC monitoring and waiver requirements found in 40 CFR 141.24(h) make a distinction between systems based on population served (greater than 3,300 and less than or equal to 3,300). Small system SOC sampling requirements should be reduced because they are inequitable.

Options:

1) Status quo.

2) Same option as for VOCs (efficiency 3, option 2). The current waiver duration would be changed from three years (141.24(h)(5)) to six years to conform to that for VOCs.

3) Systems serving populations less than 500 with no detects in the initial monitoring would not be required to conduct any additional monitoring.

4) The baseline initial SOC sampling requirement for small systems would be one sample only. States would be allowed flexibility to use vulnerability to increase monitoring requirements to four samples, completely waive monitoring, or specify a time of year to sample.

5) Monitoring for vulnerable systems would be increased. Monitoring would be based on whether the system is "suspected" to be vulnerable. Suspected systems should be required to take four consecutive quarterly samples.

6) Reduced SOC monitoring would not be limited to small systems. Monitoring once every 3-6 years is adequate for any size system with no detects.

7) Systems which do not detect unregulated SOCs in initial Phase II or V sampling would be exempt from regulated contaminant sampling requirements.

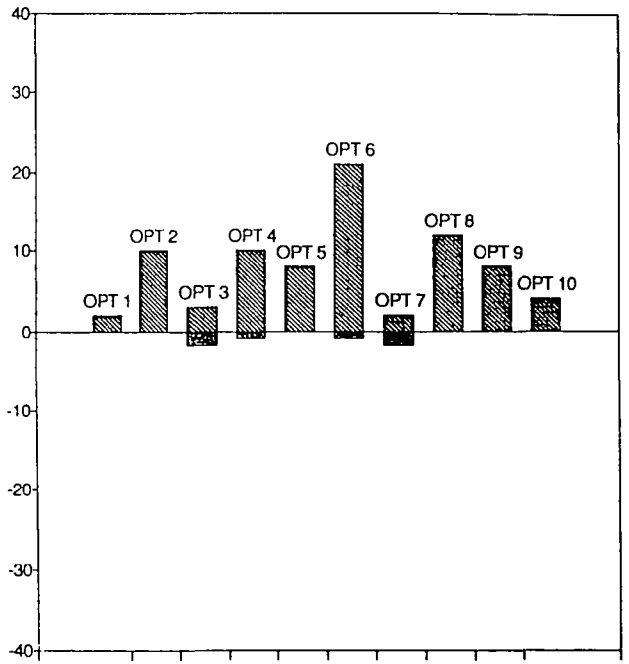
8) The response time for follow-up if a contaminant is detected in a composite sample would be based on whether the amount detected exceeds a certain level.

9) All Phase II SOC monitoring would be delayed until January 1,1996 for systems with less than 150 service connections. Since the regulation cannot be promulgated for several years, EPA should provide interim guidance for this option.

10) Initial and repeat SOC sampling for small systems would be one sample per entry point every three years.

Efficiency 4

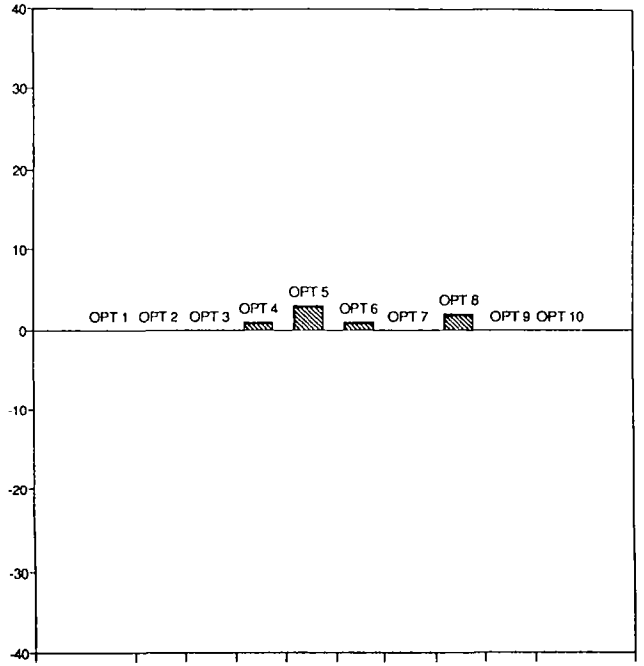
Program



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	2	10	3	10	8
No	0	0	-2	-1	0

	OPT 6	OPT 7	OPT 8	OPT 9	OPT 10
	21	2	12	8	4
	-1	-2	0	0	0

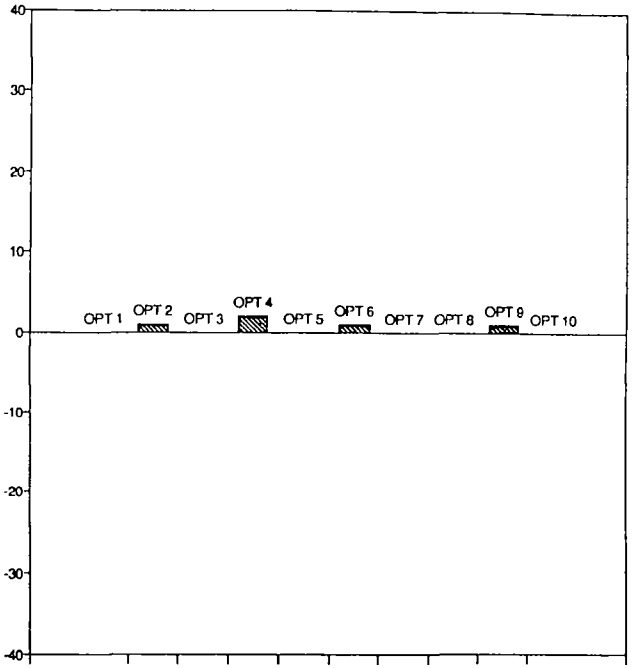
Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	0	0	1	3
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9	OPT 10
	1	0	2	0	0
	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	0	2	0
No	0	0	0	0	0

	OPT 6	OPT 7	OPT 8	OPT 9	OPT 10
	1	0	0	1	0
	0	0	0	0	0

Grandfather 1

Issue: Volatile organic compound (VOC) sampling conducted before January, 1993, which included all regulated and non-regulated VOCs and which did not have any detections of these contaminants, should be allowed to be used as a basis for reduced VOC sampling.

Background: Monitoring requirements for VOCs are found in Paragraph 141.24(f). If initial monitoring for all regulated and non-regulated VOCs was completed by December 31, 1992, and no VOCs were detected, then monitoring is required annually in the 1993 through 1995 compliance period before a reduction in sampling frequency to once each three years may be granted.

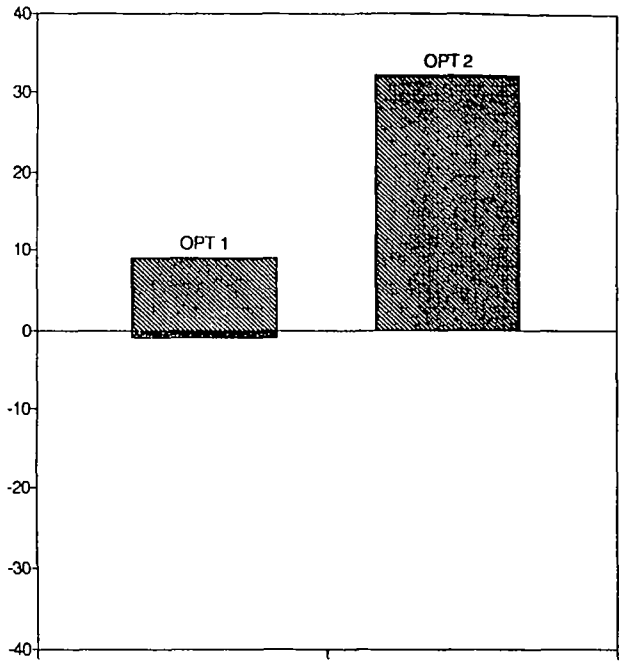
Options:

1) No changes would be made since current regulations allow waivers after initial sampling has been satisfied (either by four quarterly samples after 1993 or by one grandfathered sample before 1993).

2) Regulation 141.24(f) would be modified to allow for sampling VOCs once each three years if there are no detections in the first round of sampling for all regulated and unregulated VOCs. The sampling must have been completed by December 31, 1992 (or subsequent to that time for a new system or new source).

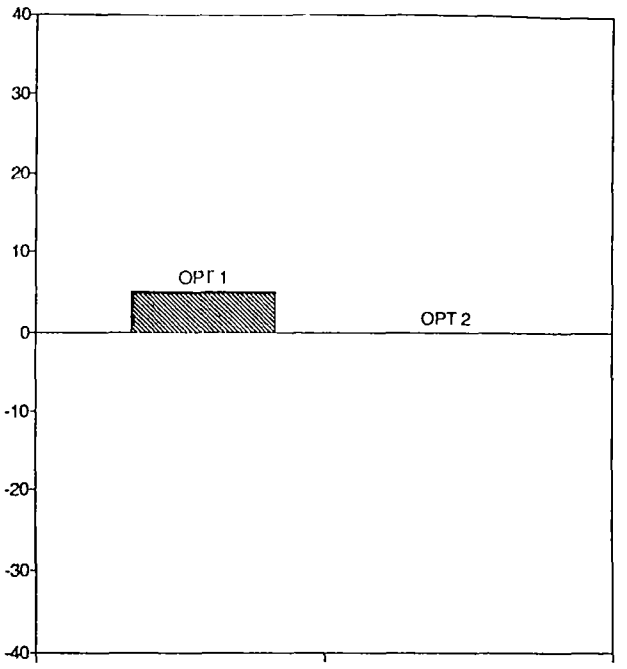
Grandfather 1

Program



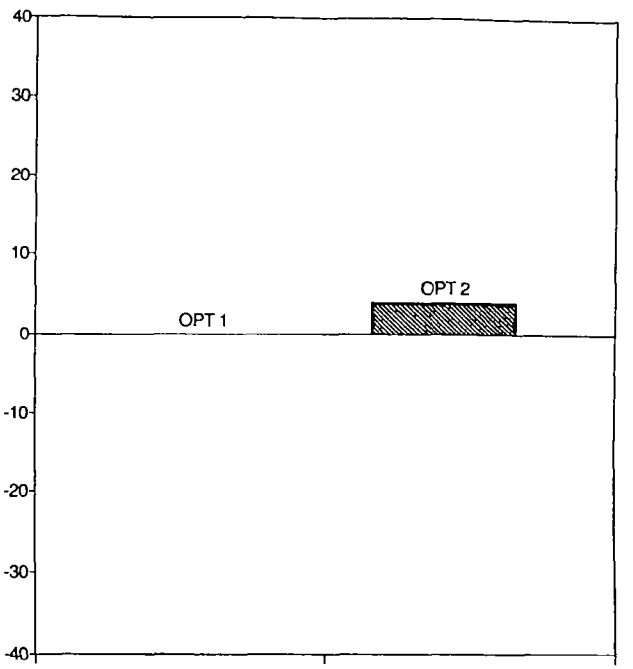
	OPT 1	OPT 2
Yes	9	32
No	-1	0

Ground Water



	OPT 1	OPT 2
Yes	5	0
No	0	0

Laboratory



	OPT 1	OPT 2
Yes	0	4
No	0	0

Timing 1

Issue: Consolidate Phase V monitoring with initial Phase II monitoring; focus on systems with less than 150 service connections.

Options:

1) Status quo.

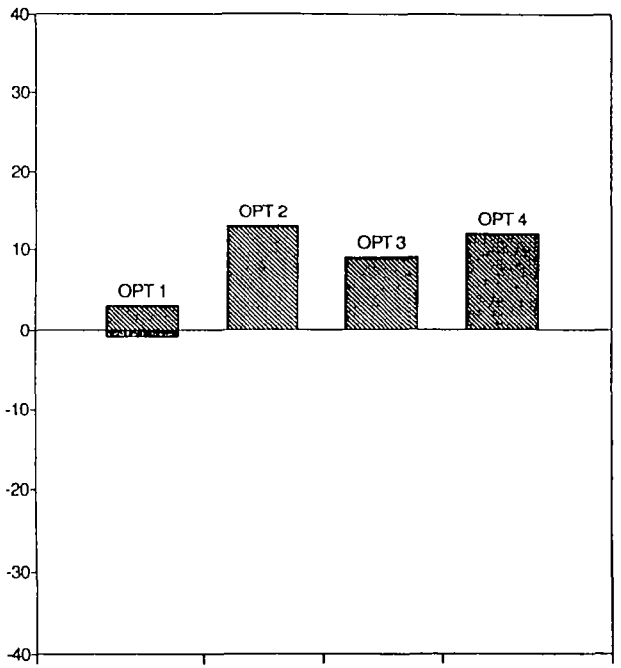
2) Allow existing systems to take the initial quarterly sample for Phase II, IIb, and V. If there are no detects, the State would have the option to permit the PWS to continue all monitoring at the current reduced level, based on analytical results from monitoring conducted under Phase I, IIb, or V (keeping Phase VIb in mind). This would allow States and supplies to identify the presence of any contaminant through past monitoring by including unregulated contaminant monitoring as a "grandfather-able" sample. It would also help States and supplies cope with the laboratory capacity program, and it would prevent a return to quarterly monitoring each time a new regulation package is promulgated. Clear guidance would be provided to the State outlining the provisions acceptable to EPA, such as the vulnerability of the system, past monitoring results, site specific conditions and contaminant specific considerations. Final negotiation of compliance particulars would be left to the State and the Region.

3) To eliminate the problem of duplicative monitoring due to existing schedules, initial compliance sampling would be deferred until 1996 for Phase II systems serving a population greater than 150. This would eliminate the duplicative sampling problem in Phases II and V, but it would not address any future rulemaking schedule problems.

4) Combine options 1 and 2 to address the problem for future regulations while providing immediate relief for small systems.

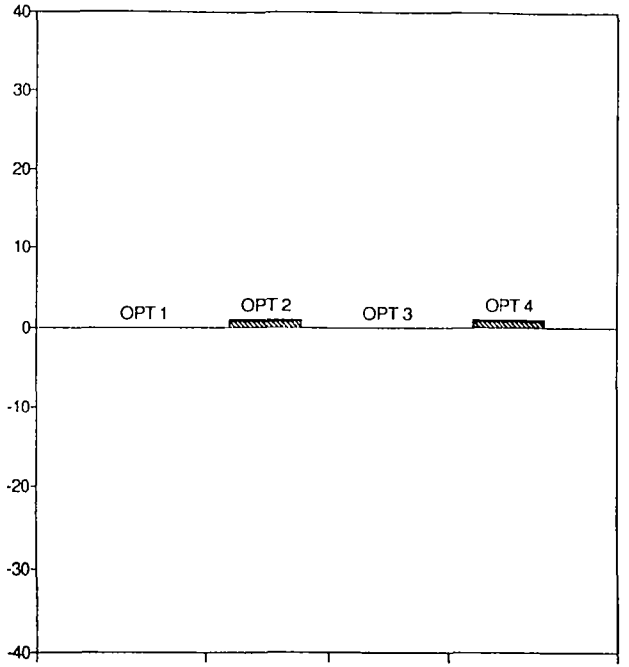
Timing 1

Program



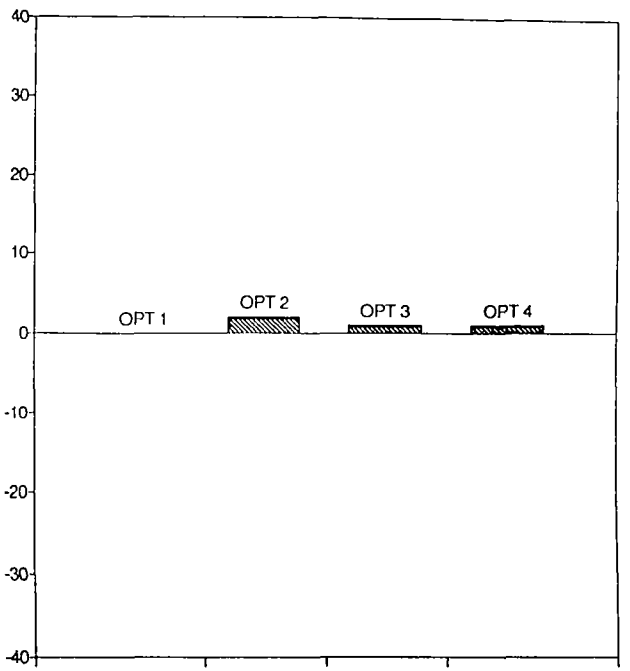
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	3	13	9	12
No	-1	0	0	0

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	1	0	1
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	2	1	1
No	0	0	0	0

Information 1

Issue: Acrylamide and epichlorohydrin treatment technique requirements are unclear and the manufacturing information necessary to implement them are unavailable.

Background: Section 141.111 requires water systems which are using treatment chemicals containing these contaminants to provide an annual certification in writing to the State that the dose is not exceeding certain levels.

Options:

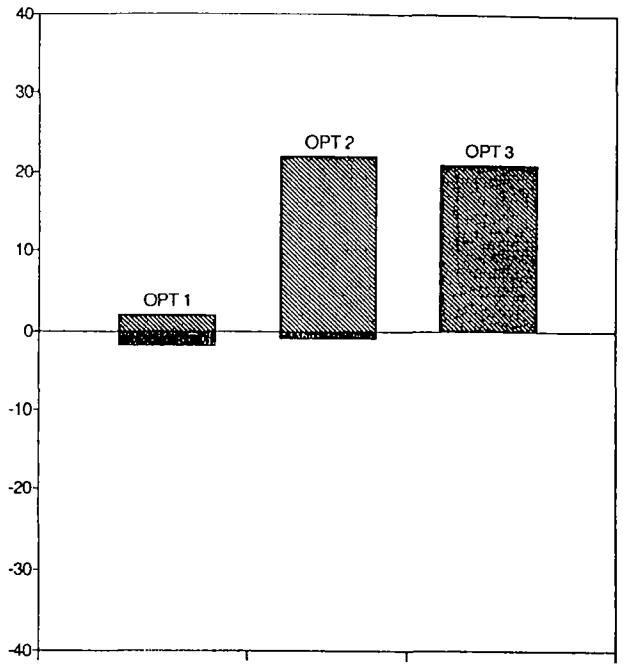
1) Status quo.

2) Headquarters guidance would be developed that would include: (1) a product listing, including manufacturers for all water treatment chemicals which contain acrylamide and epichlorohydrin, (2) health effects data in layman terms to enable water system personnel to understand the basis for regulating the dosages of water treatment chemicals containing these contaminants, (3) a simple form that could be used by water systems to obtain certification from their chemical supplier to show that the regulations are being met, and (4) in the interim, issue enforcement guidance that would allow States to delay implementation.

3) Paragraph 141.111 would be deleted. A request would be made to NSF and other water treatment chemical certifying groups to include evaluation of acrylamide and epichlorohydrin content in the product approval process.

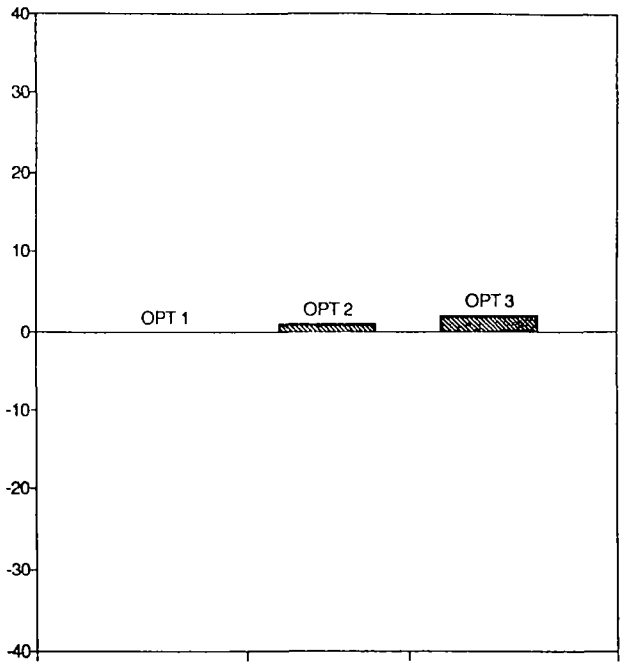
Information 1

Program



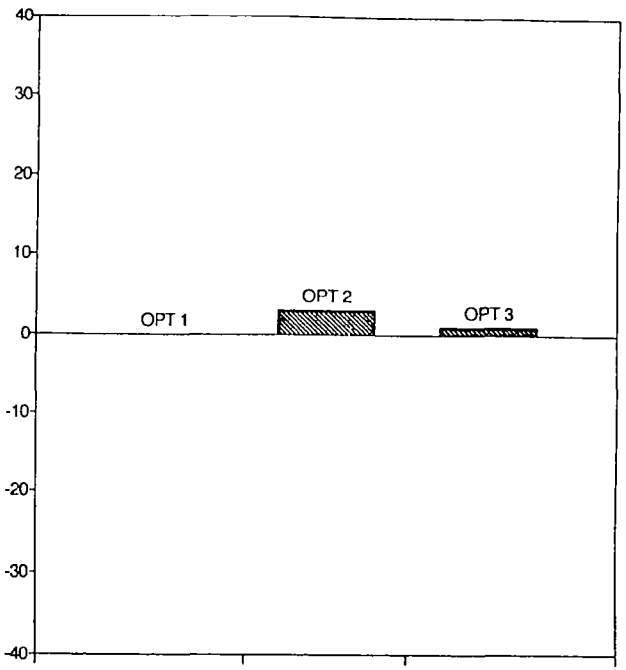
	OPT 1	OPT 2	OPT 3
Yes	2	22	21
No	-2	-1	0

Ground Water



	OPT 1	OPT 2	OPT 3
Yes	0	1	2
No	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3
Yes	0	3	1
No	0	0	0

Information 2

Issue: Need to provide States with technical information and support documents for each contaminant (fate and transport, likely sources, etc.).

Background: State regulatory agencies should be provided with clear, concise information regarding short term and long term exposure, health effects, potential sources of contribution of the contaminant, known occurrences or areas of the U.S. in which the contaminant has been identified in drinking water, characteristics of the contaminant which may affect its migration and treatment, BAT, chemical or physical characteristics, and other important information which would enable State programs to properly evaluate the importance, treatment, and potential for waivers for such contaminants.

Options:

1) Status quo.

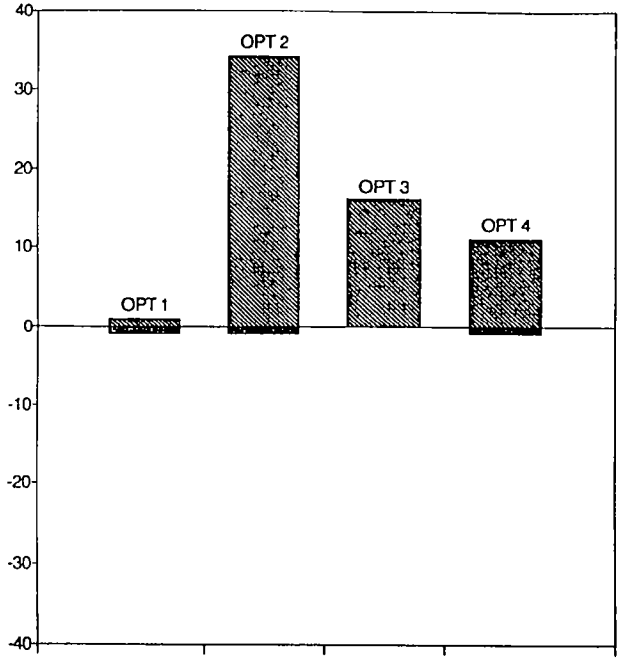
2) EPA would provide one page fact sheets on each contaminant (regulated and unregulated) to include occurrence data, persistence, health effects, and treatment process that is covered by Drinking Water Regulations. The fact sheets would be updated as additional information, including analytical methods, become available.

3) EPA would provide technical training to State staff regarding the significance of drinking water contaminants which are regulated.

4) Existing health advisories for regulated contaminants would be revised and republished in a format that would be understood by the general public. Additional health effects bulletins would be developed to address all drinking water contaminants which are regulated.

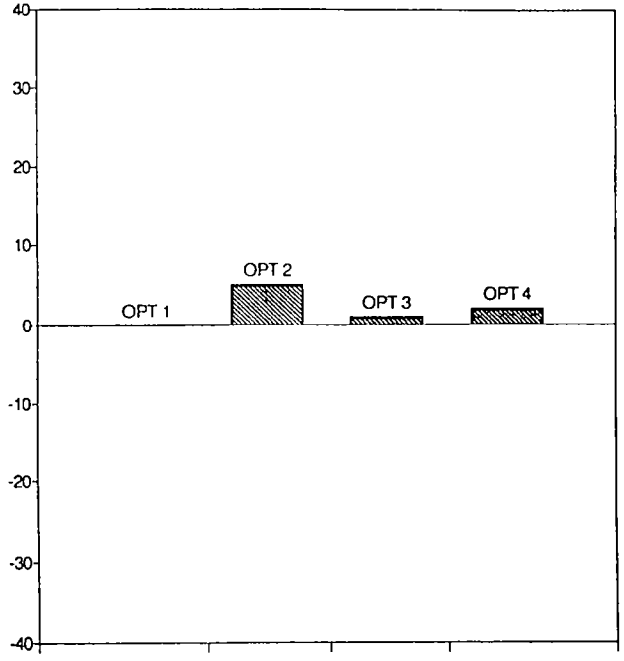
Information 2

Program



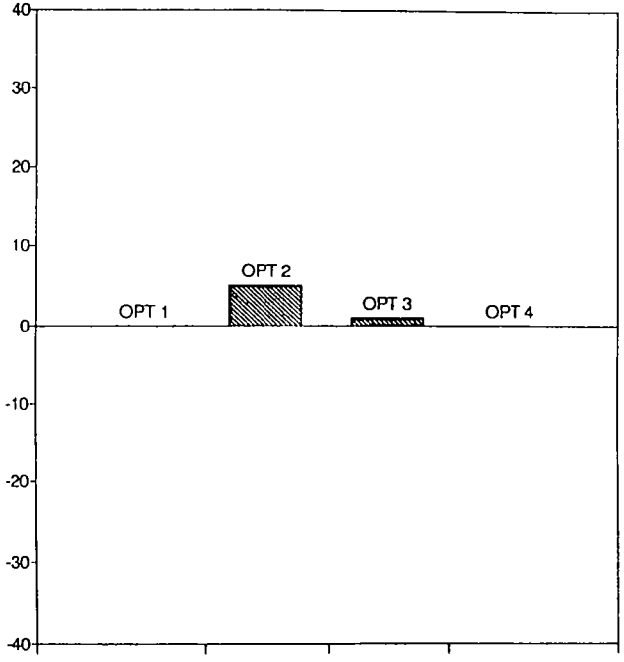
	OPT 1	OPT 2	OPT 3	OPT 4
Yes	1	34	16	11
No	-1	-1	0	-1

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	5	1	2
No	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4
Yes	0	5	1	0
No	0	0	0	0

Inconsistency 1

Issue: Reconsidering why ground water systems are allowed to reduce monitoring when they are reliably and consistently below the MCL while surface water systems can only reduce monitoring when they are below 50% of the MCL.

Background: The current criteria for reducing nitrate monitoring frequency from quarterly to annually are not the same for ground and surface waters. The ground water threshold is "reliably and consistently below the MCL." Surface waters, however, are required to continue monitoring until they are below 50% of the MCL. There seems little reason to have two different threshold criteria. In addition, the stricter standard for surface water may be excessive.

Options:

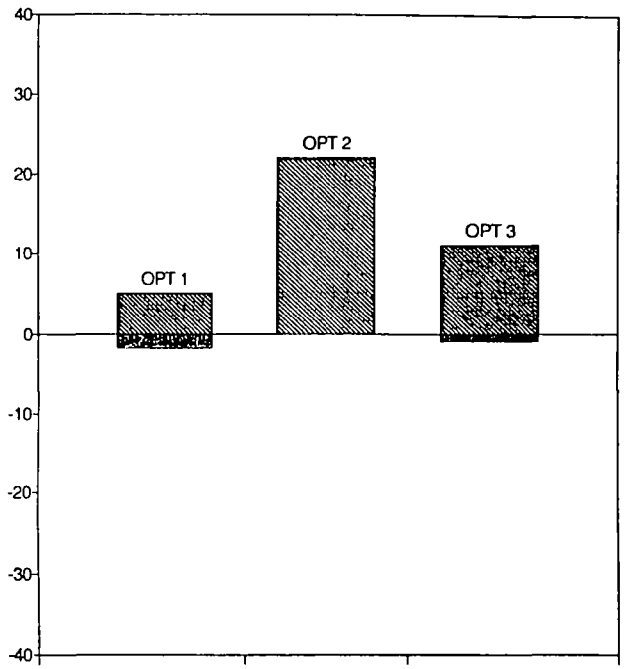
1) Status quo.

2) Parallel construction: §141.23 (d)(3) would be modified to reflect the same wording as §142.23 (d)(2) {"reliably and consistently below the MCL"}. This is consistent with the language provided in §141.23 (e)(3) for nitrate monitoring frequency. This is also similar to the threshold established for reducing organic monitoring after detection and initial follow-up sampling. This synchronization would allow the State to develop a single policy on how it would determine when a source was "reliably and consistently less than the MCL."

3) Parallel construction: §141.23 (d)(2) would be modified to reflect the same wording as §141.23 (d)(3) {"less than 50 percent of MCL"}. This is consistent with the trigger that increases nitrate monitoring "greater than 50 percent of the MCL" which is for both ground and surface waters. In order to establish a uniform use of the threshold criteria, §141.23 (e)(3) would be changed similarly. This would set a uniform measure for nitrate and nitrite of "greater than 50% of the MCL."

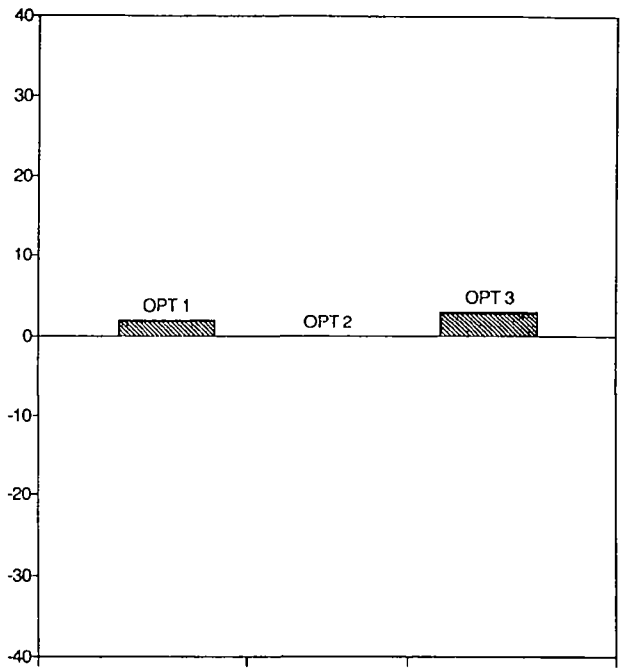
Inconsistency 1

Program



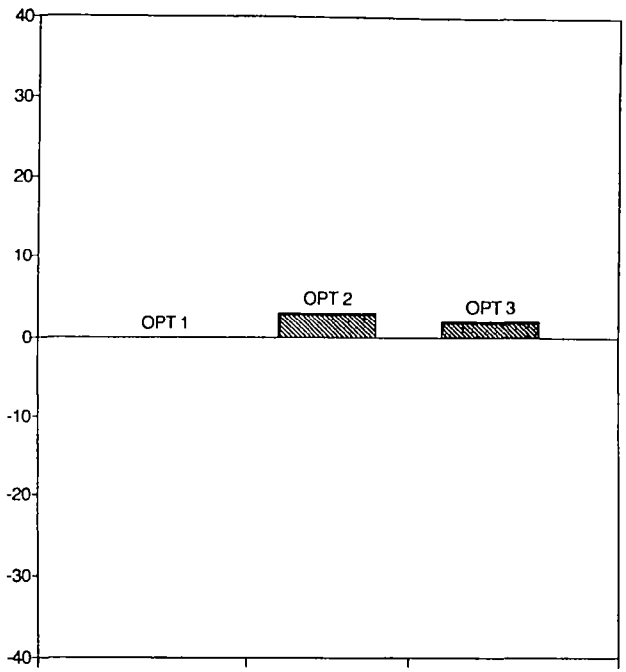
	OPT 1	OPT 2	OPT 3
Yes	5	22	11
No	-2	0	-1

Ground Water



	OPT 1	OPT 2	OPT 3
Yes	2	0	3
No	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3
Yes	0	3	2
No	0	0	0

Inconsistency 2

Issue: How can compositing be allowed for organic contaminants when repeat monitoring is triggered by detection at the MDL? The procedure and definition for VOC and SOC sample compositing has been changed in Phase II and Phase IIB, and has been further amended in Phase V. The compositing procedure is confusing and, under its current definition, of dubious analytical value.

Options:

1) Make no changes to the regulation. Technical assistance would be provided to States and PWSs in the form of guidance on which analytical methods can meet the MDL less than 1/5(MCL) test. This would not address the issue of sample dilution. However, this method would allow a number of systems to composite samples and most likely avoid repeat sampling because of the effectively raised repeat monitoring trigger.

2) The repeat sampling trigger for all organic contaminants would be changed to a higher level (perhaps PQL). This would then allow for an effective composite procedure that would define the composite repeat trigger as the PQL/# of samples in the composite.

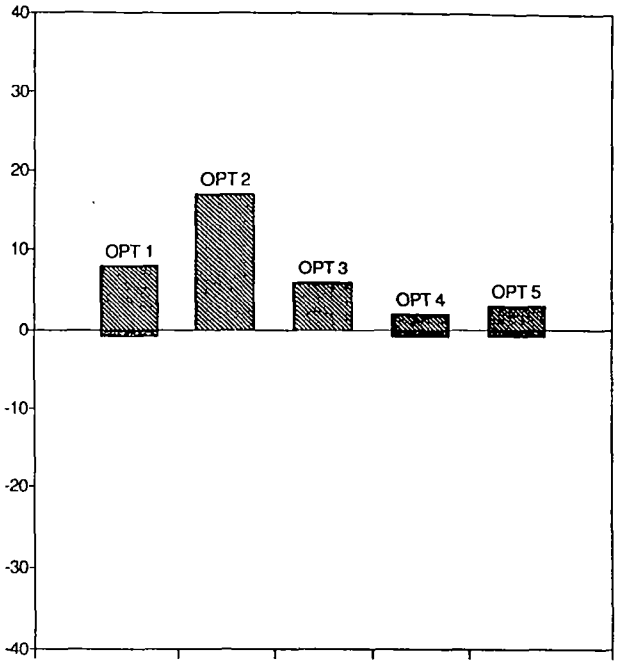
3) The current detailed language on compositing for organic (and inorganic) compounds would be replaced with: "The State may reduce the total number of samples a system must take by allowing the use of compositing." Along with a lab certification program the State could opt for compositing as outlined in its plan. As the regulation currently reads, compositing is a State option. With general guidelines from EPA, States could develop an approved method of compositing that makes sense analytically as well as economically. In the absence of such a State policy there would be no compositing for organic contaminants.

4) No sample compositing for organic contaminant monitoring would be allowed. Compositing for IOCs would be maintained.

5) Compositing would be allowed for SOCs but not for VOCs. Compositing for SOCs should be consistent with changes similar to those described in Option 2.

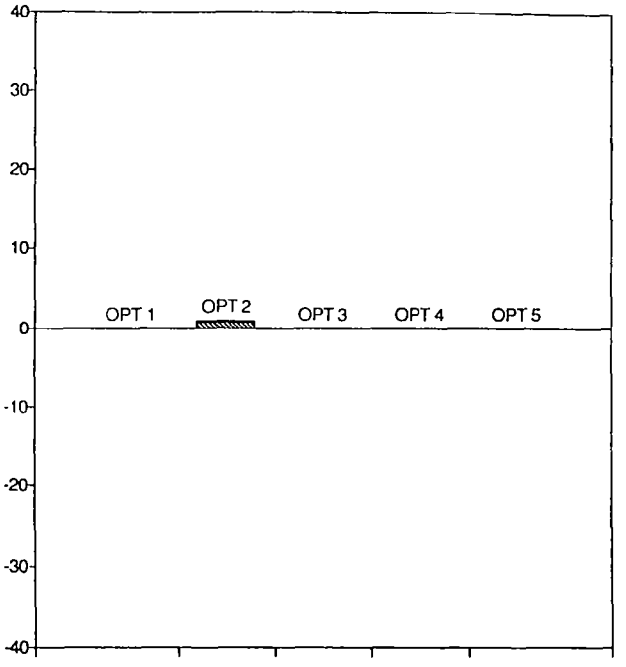
Inconsistency 2

Program



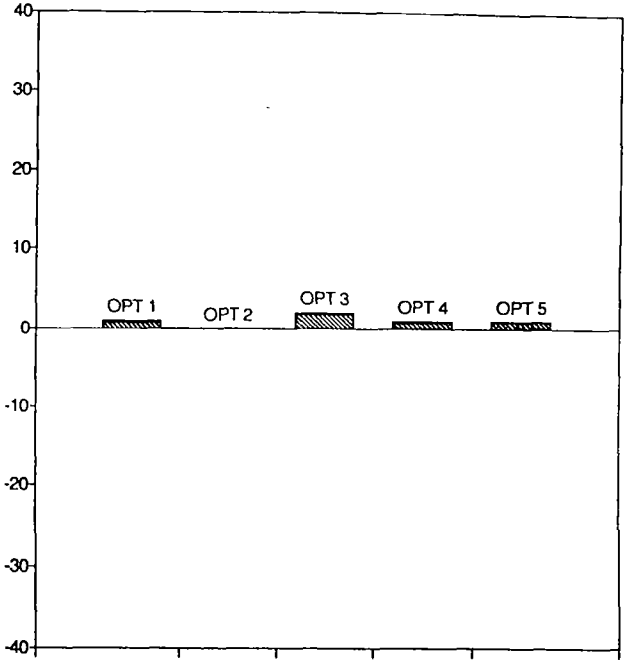
	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	8	17	6	2	3
No	-1	0	0	-1	-1

Ground Water



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	0	1	0	0	0
No	0	0	0	0	0

Laboratory



	OPT 1	OPT 2	OPT 3	OPT 4	OPT 5
Yes	1	0	2	1	1
No	0	0	0	0	0

VII. SUMMARY OF PREFERENCE FORMS RECEIVED FROM CONSTITUENTS

Summary of Preference Forms Received from Constituents

Region	State	Classification	Organization	Contact
I	Region I PWSS	Program Office	Region I PWSS, EPA	Mark Sceery, Martha Johnson, Chris Ryan, Kevin Reilly, Tom Hatzopolous
	Region I	Laboratory	US EPA - QA Office	Art Clark
	Vermont	Program Office	Water Supply Division	Jay Rutherford
	Vermont	Laboratory	Vermont Health Department Laboratory	Wm. George Mills
	New Hampshire	Laboratory	DES - Lab Unit	Patricia Bickford
	Connecticut	Program Office	DHS/WSS	Mike Hage
	Connecticut	Laboratory	DOHS Lab, Environmental Chemistry Division	Janet Kapish
	Maine	Program Office	Department of Human Services - Drinking Water Program/Ground Water Program	Dave Breau, Mary Corr, Dave Braley, and Terry Mingo
	Maine	Laboratory	Health and Environmental Testing Laboratory	Jack Krueger
	Rhode Island	Program Office	Drinking Water Quality - Dept. of Health	June Swallow
	Massachusetts	Program	DEP/DWS	Yvette dePuza and Jim Holeva
	Massachusetts	Laboratory	Div. of Environmental Analysis, Lawrence Experiment Station, Dept. of Environmental Protection	Oscar C. Pancorbo

Summary of Preference Forms Received from Constituents (Continued)

Region	State	Classification	Organization	Contact
II	New York	Program Office	State Dept. of Health - Bureau of Public Water Supply Protection	Ron Entringer
	U.S. Virgin Islands	Program Office	Dept. of Planning and Public Resources - Division of Environmental Protection	Tom Burns
	New Jersey	Program Office	Dept. of Env. Prot. and Energy	J. Louis and P. Bono
III	Pennsylvania	Laboratory	DER Bureau of Laboratories	Ted Lyter
	Pennsylvania	Ground Water	DER Ground Water Quality Section - Bureau of Water Quality Management	James T. Ulanoski
	Pennsylvania	Program Office	DER Bureau of Water Supply and Community Health - Division of Drinking Water Management	Thomas M. Franklin
	Washington, D.C.	Laboratory	Washington Aqueduct Division, Dalecarlia Laboratory	Manuel P. DeGuzman
	Delaware	Laboratory	DHSS - Public Health Laboratory	Mahadeo P. Verma
	Delaware	Program Office	DHSS - Division of Public Health	Ed Hallock
	Virginia	Program Office	Dept. of Health, State Water Control Board	Allen Hammer and Fred Cunningham
	Virginia	Laboratory	DGS/Division of Consolidated Lab Services	Ed LeFebyre
	West Virginia	Program Office	Department of Health and Human Resources - Environmental Engineering Division	Donald Kuntz
	West Virginia	Laboratory	Bureau of Public Health; Office of Laboratory Services	Charlotte Billingsley and Cathy Hayes

Region	State	Classification	Organization	Contact
IV	EPA Region IV	Program Office	Drinking Water Section	Philip Vorsatz
	EPA Region IV		Environmental Services Division, Lab Eval. & QA Section	Wade Knight
	North Carolina	Program Office	Public Water Supply Section	W.E. Venrick
	South Carolina	Laboratory	DHEC	Bob Malpass
	South Carolina	Program Office	Bureau of Drinking Water Protection	Not signed
	Georgia	Program Office	Drinking Water Program - Environmental Protection Department	Fred Lehman and Paul Arnold
	Alabama	Program Office	ADEM	Joe Power
	Mississippi	Program Office	MS. State Department of Health	J.W. May and Sammie Malone
	Tennessee	Program Office	Division of Water Supply	David Draughon
	Florida	Program Office	Department of Environmental Regulation, Drinking Water Section	Van Hoofnagle
V	Illinois	Program Office	Illinois EPA	Roger Selburg and Louallyn Byus
	Illinois		Illinois Department of Public Health	David Antonacci
	Illinois	Laboratory	Illinois EPA - Division of Laboratories/ QA Section	Jeri Long
	Ohio	Program Office	EPA, Division of Drinking and Ground Waters	James W. Evans and Kirk Leifheit
	Minnesota	Program Office	Department of Health	Dick Clark

Summary of Preference Forms Received from Constituents (Continued)

Region	State	Classification	Organization	Contact
VI	U.S. EPA Region VI	Program Office	EPA Region VI	Neil Pflum
	Arkansas	Program Office	Arkansas Department of Health/Division of Engineering	Harold Seifert
	Louisiana	Program Office	Office of Public Health	T. Jay Ray
	Texas	Program Office	Texas Water Commission - Water Utilities Division	Anthony E. Bennett
	Oklahoma	Program Office	Oklahoma State Department of Health	Judy Duncan
VII	Region VII	Ground Water	Office of Ground Water Protection	Terry Deen
	Region VII	Program Office	Drinking Water Branch	Pat Ritchey
	Region VII	Laboratory	ENSV/Region VII	Dale Bates
	Kansas	Program Office	PWSS Program/Kansas Department of Health and Environment, Environmental Laboratory	Dave Waldo, Jack McKenzie, and Aurora Shields
	Missouri	Program Office	PWSS Program	Terry Timmons
	Nebraska	Program Office	Department of Health, Drinking Water Branch	Scott Petersen
	Iowa	Laboratory	University of Iowa Hygienic Laboratory	Rick Kelley

Summary of Preference Forms Received from Constituents (Continued)

Region	State	Classification	Organization	Contact
VIII	EPA Region VIII (for Wyoming)	Program Office	Wyoming/Indian DI (EPA Direct Implementation Program)	Cindy Cody and Debra Kovacs
	EPA Region VIII	Program Office	Drinking Water Branch	David Schmidt
	EPA Region VIII	Laboratory	Environmental Services Division	Jim Gindelberger
	EPA Region VIII	Ground Water	Ground Water Program	Bill Monheiser
	Montana	Program Office	Dept. of Health and Environmental Sciences	Jim Melstad
	South Dakota	Program Office	SD DENR	Rob Kittay
	North Dakota	Program Office	NDSDHCL, Drinking Water Program	D. Wayne Kern
	Colorado	Program Office	Department of Health; Drinking Water Section/Laboratory	Jerry Biberstine and Clarence Lott
IX	EPA Region IX	Ground Water	Region IX Groundwater Protection Section	Cynthia Sans
	EPA Region IX	Other	Indian Lands Direct Implementation Program	Jill Korte
	EPA Region IX	Program Office	EPA Region IX	Patricia Mack
	California	Program Office	Department of Health Services - Office of Drinking Water	Alexis Milea
	Hawaii	Program Office	Department of Health	Bill Wong
	Arizona	Program Office	Department of Environmental Quality - DW Compliance Unit	Walid A. Alsmadi
	Nevada	Program Office	Dept. of Human Resources - Health Division, Bureau of Health Protection Services	Jeff Fontaine

Summary of Preference Forms Received from Constituents (Continued)

Region	State	Classification	Organization	Contact
X	EPA Region X	Program Office	EPA Region X	Fredianne Gray
	Alaska	Program Office	Department of Environmental Conservation	Chris Moade
	Idaho	Program Office	Drinking Water Program	Howard Woods
	Oregon	Program Office	Health Division - Drinking Water Section	Chris Hughes
	Washington	Program Office	Department of Health	Ginny Stern

APPENDIX

I

PREFACE

This appendix contains descriptions of how the different subgroups derived their recommendations based on constituent responses to the issues/options documents sent out by the Workgroup in November and December of 1992 (see Appendix G). Each subgroup's recommendations were then refined by the Workgroup as a whole, and consensus was obtained.

The lack of uniformity in this appendix is simply a reflection of the different authors within each subgroup. All Workgroup members thought it was important to provide an understanding of how the constituents' responses to the Workgroup's requests for information were factored into the final recommendations.

In this appendix, tallies of constituents' preferences have generally, although not in all cases, been distilled to one preference per Workgroup member. The Members reviewed their constituents' responses for each option and, considering the general consensus, selected the preferred option for that particular issue (if the options within an issue were not mutually exclusive, several may have been chosen). This "normalization" was done to reduce the volume of information the subgroups had to review. Appendix H displays national tallies (showing individual preferences) for the different issues/options. In all cases, there was little or no difference in the relative proportion of preferences.

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ANALYTICAL & LABORATORY CERTIFICATION ISSUES

INTRODUCTION

December 1992-- request for comment and option selection.

This issue package contains six analytical method or laboratory certification issues, which were developed by members of the National Phase I/II/V Implementation Workgroup (the Workgroup). For each issue, options are presented on which your preference is sought. The first option is the status quo, the last is a "no opinion" option. In the preference box for each issue, please check your preferred option or options (they are not always mutually exclusive). If there are any options you believe you could not live with, please indicate so and explain why in the "Comments" section. We welcome your written comments, but please also fill-out the preference box for all issues. A no opinion answer is more helpful to us than a no response.

March 1993-- results and analysis of responses.

The six issues circulated for comment in December 1992 have been annotated with an analysis of the comments received and the options selected by the reviewers. Responses were received from all ten regional/state groups, and from two of EPA's four Office of Ground Water and Drinking Water divisions. As expected, many laboratory groups in the states and regions commented on these issues.

The tally sheet summarizes the preferences received for each option. One yes or no preference per option was calculated from the responses received from each state/territorial/regional group, which means the maximum yea or nay count for any option was twelve.

Issue number two, MDLs as monitoring triggers, was transferred and incorporated into the final recommendation package of the monitoring subgroup. The remaining method and certification issues were forwarded to Jim Elder, Director of the Office of Ground Water and Drinking Water (OGWDW). A recommendation for action was included with each issue.

Other than one request for a statutory change (in the way OGWDW must approve analytical methods for compliance monitoring), the other recommendations called for actions that are within the scope of OGWDW activities. These include: writing guidance; changing the products included in final regulatory packages; improving the response to customer questions; and seeking other changes through normal regulatory procedures.

ISSUE 1 ANALYTICAL METHODS: The process for identifying and adopting new analytical methods, or adopting improved versions of previously promulgated methods is too slow and complex to meet current drinking water laboratory certification and compliance monitoring requirements.

BACKGROUND Recent drinking water regulations cite different versions of the same analytical method, do not promulgate a method for all regulated contaminants contained in the

scope of the method (e.g. ICP for Phase II metals), or do not include the latest version of an EPA method (e.g. Method 515.2).

To be certified a laboratory must use "approved" analytical methods. A new or revised analytical method must be approved by publication in a Federal Register Notice (FRN). It can take up to a year to publish a technical amendment that approves a method, which has only minor revisions to a previously approved method. It can take 12 to 36 months to comply with statutory requirements for public notice and comment to publish a FRN, which approves a method that is new or substantially revised. Methods developed or revised by EPA or other standard-setting organizations (e.g. Standard Methods) go through this process.

A method developed by a vendor or an analytical laboratory can apply for nationwide approval through EPA's alternative test procedures (ATP) approval process, which is operated by an EPA research and development laboratory in Cincinnati. If the submitted method is judged to be substantially different, equivalency data must be submitted. All methods passed through the ATP process are published in the Federal Register through a process similar to that described above.

Several options for changing the method approval process are presented next.

Option 1: Status quo. Current situation is as good as it can be under current statutory requirements and resource limitations.

Option 2: Obtain a statutory change as part of reauthorization of the Safe Drinking Water Act, which permits EPA to more rapidly adopt new technologies and approve new or improved versions of promulgated EPA analytical methods.

Advantage - could adopt approval process used in other programs or agencies that is faster and requires less EPA resources.

Disadvantage - requires legislation.

Option 3: Work with EPA lawyers to find creative ways under current statutory authority to facilitate this process, such as more delegation of authority to sign notices.

Advantage - this is easier than obtaining a legislative change.

Disadvantage - new or substantially revised methods are still likely to require public notice and comment in the Federal Register, a process which takes 12-36 months. Delegating signature authority on these notices may only save a couple of months.

Option 4: Have EPA adopt performance-based methods, which means that in each standard

compliance method, EPA would specify key performance criteria that an alternative method must meet to be approved for compliance analyses. The performance criteria would be specified for each contaminant, and would cover sensitivity, precision, accuracy, matrix effects and sample handling procedures. The user would have the option of using the promulgated EPA method or to use any method (including revised or new EPA methods) that meets the performance criteria in the promulgated method.
Advantages - eliminates the need for EPA to spend resources to approve alternate methods. Burden is on the user, not EPA, to keep detailed documentation supporting the performance of the method being used for analysis of compliance or certification samples.

Disadvantages - criteria may not be in place for several years; will require significant programmatic changes to develop a reliable oversight and enforcement system; and the record keeping burden may discourage users from developing performance-based alternative methods.

Option 5: First, add resources to the current alternative test procedures (ATP) approval process. Second, modify ATP to again allow EPA Regional Administrators to approve methods for local rather than nationwide use.

Advantage - many method development groups are familiar with the ATP process, and many EPA regions liked and used limited-approval, local-use methods.

Disadvantages - a regulatory or perhaps statutory change may be needed to sanction "local-use" method approvals. A proliferation of special, local-use methods can make auditing more difficult.

Option 6: No opinion.

RESULTS and ANALYSIS Seeking statutory approval to change the way EPA approves new analytical methods or technologies (Option 2) was the most preferred option. Almost as many reviewers preferred Option 4, which asked EPA to adopt performance-based methods. Since the numerical sum for all options exceeded twelve, it was clear that several reviewers selected more than one option.

After much consideration about the difficulties of obtaining statutory changes, the Workgroup recommended a statutory and a regulatory solution to this problem. We recommended a statutory change to clarify EPA's authority to more rapidly approve new or revised compliance monitoring methods. Other EPA groups are studying the merits of adopting a performance-based methods system. Performance-based methods have the potential to be a useful supplement or alternative to current drinking water method approval procedures. If the results of the EPA study are favorable, the Workgroup recommended that OGWDW propose performance-based

methods for public comment.

Some of the comments we received on this issue are summarized below.

COMMENTS Statutory change, although difficult to obtain, would pay back quick dividends by reducing the number of follow-up federal and state regulatory changes.

Specifying approved methods using performance criteria shifts the administrative burden from the national program to the states. A performance-based approach (while ideal for individual laboratories) will lead to a proliferation of methods, which in turn will require major changes in the way certification and reciprocity programs are staffed, funded and administered.

RECOMMENDATION To seek a statutory change in the way analytical methods are approved for compliance monitoring, and to conduct an investigation of the merits of a performance-based methods system for possible proposal by regulation.

ISSUE 2 MDLs: Method detection limits (MDLs) specified as monitoring triggers for some contaminants are orders of magnitude below the maximum contaminant levels (MCLs) and maximum contaminant level goals (MCLGs).

Option 1: Status quo.

Option 2: Obtain an MDL from several laboratories for each chemical that meets this criteria. Compute an average MDL to change the current monitoring trigger concentrations.

Advantage - inter-laboratory MDLs are relatively easy to obtain, if resources are available.

Disadvantages - it is not likely the MDL would increase very much. Thus, even the inter-laboratory MDL for glyphosate (MDL = 6 ppb) will probably still require a monitoring trigger well below the MCLG of 700 ppb.

Option 3: Arbitrarily but consistently specify a monitoring trigger closer to the MCLG. For example, for contaminants with health effects that are not acute, the monitoring trigger would never be less than 10% of the MCL.

Advantage - uses the criteria being considered for selecting chemicals to regulate in Phase 6B.

Disadvantage - the 10% or other criterion could be viewed as too arbitrary.

Option 4: No opinion.

RESULTS and ANALYSIS The clear choice (Option 3) was to adopt a concentration other than a low MDL as a monitoring trigger. This problem has been solved by the recommendations in the monitoring subgroup's report. If their recommendation is adopted, EPA may also incorporate the new trigger levels as certification requirements (cd. Issue 3 below).

RECOMMENDATION To transfer this issue, and incorporate by reference the recommendations in the monitoring subgroup's report. Their recommendation was to set monitoring triggers at the greater of the MDL, or 10% of the MCL.

ISSUE 3 LABORATORY CERTIFICATION: 40 CD §141.23(k)(5) is not specific enough as it pertains to laboratories approved by EPA or the State. It does not contain provisions for on-site inspections of laboratories. Furthermore, the certification manual is not formalized or promulgated. The result is that some requirements for certification are guidance and some requirements are regulation.

Option 1: Status quo.

Option 2: Put the Certification Manual into regulations.

Advantages - would provide a standard set of requirements that would be in a final form when promulgated. This would require that the certification manual be updated with every rule.

Disadvantages - would limit or eliminate any flexibility in development of standards for certification. Changes to the certification manual would be regulatory rather than guidance changes. The regulatory change process is often slow and resource-intensive.

Option 3: Make the Certification Manual guidance and remove all certification requirements from the regulations.

Advantages - would allow the most flexibility in creating certification standards. Changes would be able to occur quickly. Any problems that occur due to the requirements of a rule could be dealt with simply.

Disadvantages - there would be no requirements to update the certification manual with every rule. No way to assure that all states are consistent in their certification practices.

Option 4: No opinion.

RESULTS and ANALYSIS Two contradictory options were selected by the reviewers. Option 2, to put the Laboratory Certification manual in regulation, was chosen by four groups. Seven groups chose Option 3, which was to remove all certification requirements from regulations and keep the manual as a guidance document.

It was clear many reviewers wanted to be able to quickly change certification requirements to reflect emerging problems or new information, but they also believed that the third option meant that there would be no federal requirement for laboratory certification. Apparently, we had not made it clear that the requirement for a laboratory certification program remained a requirement for primacy. Option 3 only suggested that EPA collect and place certification criteria for each contaminant in one document, the Laboratory Certification manual, which would remain as guidance.

A minority of commenters asked that on-site inspections be added to the current performance evaluation sample analysis requirement, and that both requirements be regulation, not guidance. Apparently these commenters believe having complete and specific criteria in regulation is the best way to implement national certification and reciprocity among state certification programs. However, having the certification manual and all certification requirements in regulation might lead to the problem EPA now has in quickly and efficiently approving new or improved analytical methods. The rigidity of having requirements that may only be changed by regulatory action may make it difficult for EPA to help states quickly identify and certify enough laboratories to conduct initial monitoring under future rules.

Some of the comments we received are summarized below.

COMMENTS Need minimum federal certification standards to encourage state reciprocity. Goal: replace all state programs with a consistent national program.

Add to Option 2 the requirement for a site visit and passing a performance evaluation sample to each regulation. All other requirements can be placed in guidance.

Prefer a blend of Options 2 and 3. Require that states have a laboratory certification program, but leave the specifics to guidance documents, such as the Laboratory Certification manual.

RECOMMENDATIONS

1. We recommended a process change for future rules. Certification criteria would be included with each new rule as an appendix to the Laboratory Certification manual, which should be clearly designated as a guidance document that will be updated regularly to incorporate the appendices.

2. We recommended that the generic requirement for each state to have a laboratory

certification program be retained, but, by regulation, remove chemical-specific certification criteria from current rules (cd. Issue 4, below).

3. We recommended that future rules and guidance more clearly define how interim certification may be obtained for new contaminants (cd. Issue 5, Laboratory Capacity).

ISSUE 4 VOC MDLs: Certification for regulated VOCs requires a laboratory to achieve an MDL of 0.5 ppb. The MDL is not used as a certification requirement for other regulated organic contaminants.

BACKGROUND If a utility's laboratory passed EPA's performance evaluation samples for VOCs, used an approved method, but achieved an MDL for 1,2,4-trichlorobenzene of 0.6 ppb, certification could be denied under current requirements. Because the MDL is 0.1 ppb more than the certification MDL, it is appropriate that the utility not automatically qualify for "no detect" status for 1,2,4-trichlorobenzene. But it seems unnecessary to disqualify the laboratory's compliance monitoring data for a contaminant with an MCL of 70 ppb.

For example, this laboratory could be consistently providing high quality monitoring data that indicates a background 1,2,4- trichlorobenzene concentration of 1-2 ppb in the drinking water. However, under current rules, the data could not be accepted for compliance because of the MDL problem.

Option 1: Status quo.

Option 2: Require that the detection limits specified in the regulations be a certification requirement for all contaminants, not just for VOCs.

Advantage - makes the certification requirements more consistent.

Disadvantages - Issue 2 above noted that many MDLs are currently set as monitoring triggers for some chemicals at levels much, much less than the MCLGs and MCLs. If all MDLs were made to be certification requirements, this would prevent many laboratories from obtaining certification.

Option 3: Remove the MDL certification requirement for VOCs.

Advantages - makes the requirements consistent with the requirements for other regulated contaminants.

Disadvantage - may be construed as weakening certification requirements for regulated VOCs, which are ubiquitous contaminants and key indicators of drinking water pollution.

Option 4: No Opinion.

RESULTS and ANALYSIS Deleting the requirement that a 0.0005 mg/L MDL be achieved to be certified for VOC analysis (Option 3) was the most preferred option. Adopting this preference would be consistent with the second recommendation for Issue 3 above (Laboratory Certification), and with the monitoring subgroup's recommendation to set monitoring triggers at the greater of the MDL or 10% of the MCL.

Some reviewers recommended keeping MDLs as certification requirements only if EPA's promulgated MDLs were replaced with "realistic" MDLs. Adopting this view requires an analysis of the policy and science behind using inter-laboratory data to set MDLs. This is beyond the scope of the Workgroup's charge. The Workgroup believes it is more appropriate to wait for the results of studies being conducted by the American Chemical Society, EPA and other organizations. These groups are studying how to better specify detection and quantitation limits for regulatory and scientific use.

Some of the comments we received on this issue are summarized below.

COMMENTS Option 2 - Do not use an average as mentioned. Instead specify a range of MDLs within which laboratories must routinely operate (say 95% of the time).

Do not eliminate the MDL requirement; set realistic MDLs based upon MCLGs.

RECOMMENDATION To delete, by regulatory action, the requirement that a laboratory must achieve an MDL of 0.0005 mg/L to obtain or maintain certification for VOC compliance monitoring.

ISSUE 5 LABORATORY CAPACITY: There is concern about EPA not having adequate time to send out Performance Evaluation samples so that laboratories can be at least conditionally certified for Phase II/V analyses in time for the 1993 monitoring. The Phase II rule states that certification is based on performance evaluation study performance.

Option 1: Status quo.

Option 2: Allow certification conditionally (not provisionally) without performance evaluation samples or on-site visits if statutory deadlines must be met.

Advantages - provides some minimal oversight of the laboratory by the state.

Disadvantages - could result in bad data.

Option 3: Require that monitoring cannot begin until laboratories have been certified.

Advantages - allows States adequate time to certify laboratories and insure the highest quality data possible.

Disadvantages - requires a change in regulations or needs to be included in all future regulations. Disrupts the Standardized Monitoring Framework. Places public health behind resources as a priority.

Option 4: If laboratories are not certified by the beginning of a monitoring period, push monitoring back to the next compliance period.

Advantages - allows state adequate time to certify laboratories. Keeps monitoring on a standardized schedule.

Disadvantages - requires a change in regulations or needs to be included in all future regulations. Places public health behind resources as a priority.

Option 5: If no laboratories are certified at the beginning of the compliance period, systems may use a laboratory until certification is granted to the laboratory.

Advantages - does not disrupt monitoring schedule. No resource burden on the State.

Disadvantages - no controls on the laboratories and how they perform methods. Could produce bad data and a public health threat.

Option 6: No Opinion.

RESULTS and ANALYSIS The comments we received on this issue could be summarized as follows: "No data is better than bad data - use only certified laboratories." There was no clear consensus on this issue; two groups had opposite views. One group, comprised of state and some EPA regional personnel, believed monitoring should be postponed until authorities were assured that quality data would be collected. They believe false negatives can be harmful and lead to imposition of inadequate repeat sampling schedules; false positives may result in unnecessary anxiety and resampling expense. The other group agreed with the need for reliable monitoring data, but they were reluctant to accept the indefinite postponement of monitoring, which could be the result of the first group's preference.

A lack of certified laboratory capacity has been a serious problem for systems that had to begin monitoring in 1993 for asbestos and Phase V chemicals. States and systems have not had enough time to determine what the sample load will be, nor to identify and certify enough laboratories to handle the sample collection, analytical and data reporting work. The Workgroup

concluded this problem occurred for some contaminants, such as glyphosate and dioxin, because the first compliance monitoring period began on January 1, 1993, which was less than six months after promulgation of the Phase V rule.

To prevent a reoccurrence of a laboratory capacity shortfall in future rules, the Workgroup recommended a delay (until the January 1st that occurs 18-months after promulgation) in the start of compliance monitoring. This synchronizes new monitoring with the effective date of new MCLs, and with the current three year standardized monitoring schedule. This short delay will allow states more time to calculate expected sample loads, and to certify enough laboratories to handle it. As a further help, we recommended that interim certification criteria be clearly specified in each rule, and in the Laboratory Certification guidance manual. Interim certification guidance will help states handle special-situation contaminants, which in the past have included asbestos, dioxin and some pesticides.

To facilitate implementation of future rules, we also recommended that a more complete set of implementation aids, definitions and guidance documents be included with each final rule package. Topics to be covered in these implementation tools will:

- Clearly indicate which PWS system category (CWS, NTCWS, TNCWS), water sources and populations-served categories are covered under the rule,

- Explain how to use initial experiences with implementation to construct SNC definitions and FRDS procedures,

  - Specify and explain URTH levels,

- Identify groups that are more vulnerable to an adverse health effect (e.g. infants and nitrate/coliform; tourists and sulfate),

- Identify valid screening methods that may be used as part of a vulnerability assessment to obtain waivers,

- Clearly define variance and exemption criteria and procedures,

- Provide clear and complete explanations of public notice and public education processes,

  - Provide direct implementation guidance,

- Provide charts and tables to show how the new rule integrates with other PWSS rules.

RECOMMENDATIONS To allow a short delay in future regulations by starting monitoring in January of the year that occurs 18-months after promulgation. To provide the regulated community a more complete set of implementation aids with each rule.

ISSUE 6 NITRITE: Since free chlorine will oxidize nitrite to nitrate, analysis for nitrite in a chlorinated system will show no detect. Also, the requirement for nitrite to be analyzed within 48 hours will be very difficult for many water systems to meet.

Option 1: Status quo, which requires one nitrite sample.

Option 2: Lower the detection trigger to 0.5 ppm and measure nitrite and nitrate in the same sample as "combined" nitrate. This is done by oxidizing all nitrite to nitrate prior to analysis. If the combined nitrate concentration is less than 0.5 ppm, a separate nitrite analysis need not be performed.

Advantages - this option is applicable to all supplies, since natural oxidation of nitrite to nitrate in chlorinated drinking waters can be induced in supplies that do not chlorinate. The advantage is that nitrate samples are more stable, and need not be analyzed within 48-hours. States could permit (without federal involvement) this combined analysis, because the 0.5 ppm trigger is more restrictive than the federal requirement, which sets the nitrate repeat monitoring trigger level at 5 ppm.

Disadvantage - it may be difficult to change any federal monitoring requirements for these acute contaminants, without significant EPA deliberation. To save time the states may have to act on this before EPA can. Also, systems that are expected to have nitrate concentrations between 0.5-5 ppm will have to perform unnecessary repeat nitrate monitoring.

Option 3: Develop and approve a field test kit for nitrite to allow water systems to conduct compliance monitoring. Require sampling before chlorination.

Advantage - quick and simple, makes it easier to meet the 48-hour sample holding time for nitrite analysis.

Disadvantage - need to find resources to evaluate and approve a kit, which is not likely to happen in time to help with 1993 to 1995 compliance monitoring requirements.

Option 4: Waive nitrite monitoring in any system that maintains a free chlorine residual.

Advantages - automatic waiver. Permits systems to continue nitrate sampling using the 5 ppm reduced monitoring trigger, and longer sample holding times.
Disadvantage - may need to determine the chlorine residual at each system that is required to assure that all potential nitrite is converted to nitrate.

Option 5: No opinion.

RESULTS and ANALYSIS Option 2 was selected by many reviewers. It allows a system to conduct a combined nitrate plus nitrite analysis. The combined analysis can be performed accurately up to 14 days after sample collection, whereas nitrite analysis must be completed within 48-hours. Option 4, which waives monitoring in chlorinated samples, was the most preferred option. Commenters correctly noted that this waiver could be extended to any contaminant that is oxidized by the applied disinfectant.

Some of the comments we received on this issue are summarized below.

COMMENTS The oxidation chemistry is similar for glyphosate and cyanide in a chlorinated system. Therefore, prefer option that exempts chlorinated systems from nitrite, glyphosate and cyanide monitoring.

Status quo - mandatory nitrite monitoring is unacceptable; all other options seem reasonable, especially simple field kits.

RECOMMENDATIONS

1. By guidance, permit combined nitrite and nitrate analysis, with the resample trigger concentration being one-half (0.5 mg/L) of the nitrite MCL.

2. To waive monitoring for contaminants that the system demonstrates would be completely removed by oxidation by the applied disinfectant. Adopting the waiver criteria may require regulatory notice and comment.

ANALYTICAL & LABORATORY CERTIFICATION TALLY SHEET

INSTRUCTIONS

1. Mark your preferred option(s) with a check, "√".
2. If there is an option unacceptable to you, mark it with a "NO", and please explain the reasons in the "Comments" area. If you have no preference or no opinion on this set of options, please mark the appropriate section.
3. Please provide any additional comments in the space provided and on the back of this page.

OPTIONS	1	2	3	4	5	6	CMTS
ISSUE 1 (New methods)	4-No	9	1-No 1	7	2		
ISSUE 2 (Low MDLs)	1-No 1	1-No 1	11				
ISSUE 3 (Cert manual)	1-No 3	2-No 4	7				
ISSUE 4 (Required MDLs)	2-No 1	1_no 3	6	1			
ISSUE 5 (PE samples)		2-No 4	6	3	3-No 1		
ISSUE 6 (Nitrite)	2-No 2	3	2	8			

MISCELLANEOUS ISSUES

(Communication Issues)

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ISSUE #1: *Information is difficult to obtain and is not collected and disseminated efficiently. Users need easy access to information regarding analysis methods, lab certification criteria, FRDS and data management issues, regulatory changes, guidance, interpretations, funding restrictions, Primacy requirements and monitoring/waiver modifications.*

Option 1: Maintain status quo -- use Hotline Newsletter and informal communication methods.

Adv: No additional resource expenditures.

Disadv: No improvement in dissemination of information.

Option 2: Create a central information distribution center, such as expanding the Hotline responsibilities and activities to receive and respond to all inquiries.

Adv: Allows general and semi-technical questions and information to be obtained from a central source, allows efficiency in gathering and storing information.

Disadv: Major resource commitment.

Option 3: Establish dedicated information handling and distribution centers with specific responsibilities in separate areas such as: Laboratory/certification activities; Data handling/reporting (FRDS II); Regulation modification/guidance/interpretation; health effects/contaminant specific data; etc.

Adv: Allows specific location to contact experts and knowledgeable people to obtain information and answers.

Disadv: Creates multiple information centers which requires major resource commitments and could create confusion as to location of information.

Option 4: Establish mailing lists or bulletin board to automatically send specific type information to a pre-identified group.

Adv: Provides a mechanism to receive pertinent information (new regulation, guidance, reviewed analysis methods, etc.) without requirement to solicit information.

Disadv: Resource commitment to develop meeting lists or bulletin board.

ISSUE #2: *An efficient tracking system is not available for new and revised data handling issues (FRDS). Communication regarding FRDS and data management issues relating to new rules are currently issued from EPA HQ to the Region, where the document goes from the Branch Chief to the Section Chief to the Regional FRDS contact, with the possibility of comments or replies to previous comments, all prior to the State receiving the document.*

Option 1: No change in current activity.

Option 2: HQ should provide guidance to streamline the flow of issues by creating a direct path of communication between HQ and 1) Regional FRDS contact and 2) State FRDS contact, enabling new issues, and current status of earlier issues to be obtained by concerned persons in the Region and State in a more timely manner. An individual from HQ should be designated as the contact person to contact the State and Region when new issues arise, or for status changes/updates.

Option 3: In addition to steps outlined in Option 1, create a dual track of communication, so that as before, all documents are formally sent through the usual channels, and also create a direct pathway between HQ and State/Regional FRDS contacts. Section and Branch Chiefs will still receive issues for their comments, and FRDS contacts will receive issues in a more timely manner.

SUMMARY OF PREFERENCES

State and EPA Drinking Water Programs, laboratory groups and Groundwater Program were asked to review the issues and select one or more preferred options and make comments. For Issue #1, 55% selected Option 4 and 45% selection Option 2. For Issue #2, 73% selected Option 3. Since the underlying problem with both issues is information dissimulation, one problem statement was developed to reflect all concerns. Comments and examples provided by the Workgroup were used to develop the justification. The recommendation is a combination of Options 2 and 4 from Issue #1 and Option 3 from Issue #2.

COMMENTS REGARDING MISCELLANEOUS ISSUE #1

1. This type of service is badly needed, perhaps a Region Oversight person from each Region could be trained in this.

2. The current status is too confusing, especially with respect with waivers, rule contradictions and lab certification. A centralized clearinghouse would not even be able to provide all the answers since they are not yet available, but it would help everyone involved to at least "be on the same page".

3. In Option #2, a Hotline should keep an updated list of experts in areas for technical issues.

4. Add an Option #5 - keep an updated list of materials available, older forms and contracts and internal (EPA/State) and system documents. Add to Hotline contract with input from Region VIII RCAC Project.

5. Add an Option #5 - develop a dynamic list of information that is available - synopsis of content, contacts, what is currently under development, and have the Hotline develop and maintain. Develop a directory of resources (contacts). Best to keep it de-centralized (Regions, HQ and Cincinnati should develop and maintain).

6. As implementation of Phase I/II/V develops, there will be a need to find solutions to problems that work and work quickly. We should not be creating unique solutions to shared problems such as FRDS management, primacy, regs, waivers, etc. Annual and national State meetings should be an option that could assist in information distribution. Some states will solve management problems before others encounter them and their solutions should be shared, potentially avoiding the problems in some states.

7. Hotline response time is much too slow.

8. Dedicated information center should feed Q&A to Option #4.

9. We really like the idea of things coming out to us automatically. Someone else may ask a question that we didn't know enough to ask at the time, but when we see the Q&A it may save making an avoidable mistake. The option should state mailing list (and/or) bulletin board. Info transfer must be timely.

10. Creating a mailing list and automatically distributing information to states, counties, etc. might be a good option. These people could then be responsible for duplicating and further disseminating the information (particularly information sent to primacy state agencies).

11. Also see Regulatory Reformatting Sub-Group Report.

12. Which groups? Could any "group" ask to be included?

13. Option 3 with a multi center will also lead to lack of communication and information flow.

14. Options (general) need a general contact location or specific contact location covering all areas. Hotline expansion is okay if enough personnel on hand so callers can get through. May want number for the public and number for other governmental agencies (states, etc.) to call so it would be easier to get the call through.

15. There is need for EPA to ensure that their technical staff are better informed from the top down. Although it would be helpful to have a designated expert on a subject, this

person may be inundated with questions and have limited time to provide a complete, detailed response to all questions. To have less than fully informed EPA Regional Office Technical Staff seems to be a waste of valuable resource.

16. Since the preferred option to under Issue #1 is to expand the SDWA Hotline responsibilities, the preferred solution/option under Issue #2 is really for the Hotline to be the first contact. The Hotline, in turn would work with the designated HQ contacts.

17. Need commitment from EPA HQ to consider and support implementation issues as fully as Regulations Development. The support should continue long after a Regulation is developed.

18. We do not. believe that committing more resources to distribution centers will solve the problem. For major documents it is suggested that copies be distributed to applicable state agencies, be accomplished concurrently with regions, the current system appears to focus on regions performing this function. Better use of the newsletter could benefit the overall dissemination of information.

19. The Hotline is vulnerable to changes in contractors, and cannot respond to policy questions. The Q&As in the Hotline monthly report should be compiled for wide circulation (e.g. separate from the report, via DRIPSS).

COMMENTS REGARDING MISCELLANEOUS ISSUE #2

1. Not an issue that B&S directors want to be involved in.

2. Option 1 is simply not working. For example, Lead and Copper Rule FRDS info is still not available. Reporting issues should be handled consistently and should be considered as part of Regulations development. A new tracking system or communication system may not reach all staff who need to know.

3. Also, an individual from HQ should be designated as the contact person to contact the regions when new issues arise or for status changes and updates.

MONITORING ISSUES

Monitoring Subgroup Issues

This attachment lists the issues addressed by the subgroup. The issues fall in three categories: one generic issue; a series of specific issues addressing flexibility, efficiency, grandfathering of data, timing of sampling, information needs, and consistency; and a matrix of options for monitoring of each major chemical class (inorganic, synthetic organic, and volatile organic). For each issue, the subgroup developed a number of options, and then obtained preferences from their constituents on each of the options. This attachment lists each option, and how it fared in the preference voting. The attachment also lists any comments which came in from constituents regarding the issue. Finally, for each issue, the attachment lists the outcome of how the issue was addressed in the recommendations made by the full work group.

In the preference voting, preferences were obtained from 14 groups: each EPA region and the states in that region, and each of the four headquarters divisions in the Office of Ground Water and Drinking Water. Some of the 14 groups presented a single, combined position from their constituents. The others presented the actual preferences they received. The preferences receiving the most support from each group are shown in the discussion of each issue. The tallies frequently do not total 14 because: 1) not all 14 groups expressed preferences on all issues, 2) many groups recorded ties, which were reflected as multiple tallies, and 3) an option had to receive the top number of tallies from at least two groups to be recorded as having received tallies.

At the end of this attachment is a list of all preferences which were submitted. Each box contains the option number, a dash, and then the number of preferences recorded for that option (e.g., #2-4, for Option 2 got 4 tallies). The options are listed in each box in descending order of preference. The options which got just one tally are listed together, without the # sign in front (e.g., 2,5,7,8-1, for Options 2,5, 7 and 8 got one tally each). Any options which got a negative tally are listed at the bottom of that box with a circle around the option number. At the far right of the table is a summary column. In that column are listed the options, again in descending order of preference. This time the option number is followed by an equal sign and the number of regions/HQ divisions for which it got the highest tally (e.g., #3=5, or Option 3 got the highest number of tallies in five regions/HQ divisions). Options which got the top tally in only one region/HQ division are not listed in the summary column. If a region/division had a tie, which often occurred, all the options with the highest number of tallies in that region/HQ division were tallied at the far right. The information in the summary column is presented as the outcome of the preference voting in the rest of the attachment where each issue is presented.

Generic Issue

Framework requirements are too complex and are insufficiently integrated to allow an efficient use of previous monitoring data and other resources. Waiver requirements are overly prescriptive and resource intensive.

Preference	Option
1.	Completely redesign the Standardized Monitoring Framework
2. 6	Retain the basic framework; make regulatory fixes identified in the problem statements and specific issues on an ad hoc basis
3. 6	Retain the Standardized Monitoring Framework structure with or without ad hoc regulatory fixes but move waiver requirements out of the regulations and into guidance
4.	Abolish the Standardized Monitoring Framework, including waiver requirements, but require States to submit a monitoring/waiver plan for EPA approval
5.	Abolish the Standardized Monitoring Framework. Have no Federally-mandated monitoring requirements.

Comments on Generic Issue

Generally, comments pertain to the fact that states are required to spend more money to prove problems don't exist, rather than correcting health problems. Another related comment is that the whole premise of EPA's regulations and waiver process is backwards, since the assumption is that most water supplies are contaminated, when in reality, most are not. It would be more effective for states to determine vulnerability to contamination instead of wasting time demonstrating that thousands of water supplies are free of contamination.

Seems too late for a reg change.

Too committed to current framework to change, even though we have problems with it.

Some variation of Option 2 or 3 is preferred. The basic monitoring framework should be retained but minimum monitoring requirements should be significantly changed. Monitoring frequency for the IOCs except nitrate and nitrite should remain the same. For the Phase II and V organics, only systems which previously detected a Phase I VOC or an unregulated organic contaminant now included in the Phase II or V regulated contaminants, and those systems determined to be vulnerable by the state should be required to monitor four initial quarters (i.e., entry points at which any of the 21 VOCs was detected should be monitored four quarters for all 21 VOCs and entry points at which an SOC was detected should be monitored four quarters for that SOC). All other entry points should only have to be monitored once to meet initial monitoring requirements. Repeat monitoring should be based

on two triggers: one the MDL and the other the MCL. For VOC monitoring at an entry point, if all initial results are less than the MDL, repeat monitoring could be continued annually or once every 3 years at state option, with a monitoring waiver being granted after three consecutive rounds with no detection of any VOC. If initial monitoring for any VOC at an entry point indicates a concentration greater than the MDL but less than the MCL, monitoring should be continued annually. After three consecutive annual samples less than each VOC MCL, required monitoring at an entry point would be reduced to once every three years. SOC monitoring requirements would be the same as those recommended for VOCs except that repeat monitoring would be evaluated on a contaminant by contaminant basis.

MCLs should be based on adverse health effect levels and costs for large systems. MCLs should be applicable to all systems without regard to size. Systems with <150 service connections would be exempt from monitoring requirements unless they had reason to believe that a contaminant existed in the water supply. Thus, water systems would have primary responsibility for assessing vulnerability, not the States or EPA. If one of these systems had reason to believe contamination is probable (e.g., an NPDES discharger known to dump into raw water), then the system would have to do the full range of monitoring for those contaminants and any others routinely detected by the method. Only values in excess of 50% of the MCL would have to be reported to the State. There would be no Federal oversight of these systems. Citizens would have the right to petition to initiate monitoring. EPA or the State could order the utility to monitor to assure compliance.

Option 1: A completely redesigned Standardized Monitoring Framework (SMF) should take into account future regulations (e.g., ground water disinfection rule) and all future regulations should adhere to it. The many exceptions to the SMF (e.g., asbestos, endrin, lead, copper, etc.) increase the complexity and add to the confusion.

Option 2: Allows maximum waiver flexibility to the states but allows a standardized framework from which to build consistency on a national basis.

Option 3: Removing waivers from the regulations and/or giving total State control will remove Federal "teeth" to adequately safeguard public health.

Appealing; doubt it would have a chance with USEPA.

Option 4: Option is consistent with current WHP and CSGWPP guidelines

If Option is adopted, what requirements would EPA use in non-primacy states and Indian Lands?

Not as bad as option 5, but not good.

Option 5: Too inconsistent nationally. If adopted, what requirements would EPA use in non-primacy states and Indian Lands?

Too high cost for states and would be a very long process to design program. Don't believe Congress would allow for this option, anyway.

The advantages listed are minuscule or imagined. The disadvantages are underplayed. Inconsistency (not perception), lack of EPA leverage, and lack of State resources make this a no-go. The result, to a certain extent, will be the same as waterborne disease outbreak occurrence. When you spend resources looking for it, you find it. If you don't look you don't find it.

I hesitate to propose extreme changes now since so much effort and momentum is already invested in Phase II and V implementation. More flexibility and time are needed without a doubt, however!

Removing waivers from the regulations and/or giving total State control will remove Federal "teeth" to adequately safeguard public health.

Needless and voluminous guidance should be avoided. Essential guidance should be in a format that can be easily xeroxed and disseminated widely at low cost.

The regulations should contain more automatic reduction of sampling, in lieu of waivers, particularly for small (<3,300 population) systems.

For simplicity, waiver periods should be the same duration for all contaminants, and require the same number of samples per compliance period.

Current requirements were the result of years of workgroup deliberations and considerable data analysis. I see nothing in here that causes me to want to change. I hear some problems, but see no evidence that the proposal will correct them or not create new problems for PWSs, citizens, States, or EPA.

Water systems should be able to reduce sample frequencies but they must, in addition, demonstrate that they are capable of identifying any contamination which may be present. IOC contamination tends to be from natural, predictable causes for the most part, as opposed to SOC contamination which is from man's activities, exclusively. We don't know enough about the changes of man's activities yet to provide the same sampling reductions for SOCs and pesticides.

Outcome

The group believes that the results show a fair amount of consensus on a general principle. That principle is to retain the Standardized Monitoring Framework but give States much more flexibility. That flexibility extends clearly to waivers, and probably also to base requirements. For some, this flexibility is coupled with more guidance from EPA but not EPA approval of specific waiver/base monitoring decisions.

This principle is reflected in the group's monitoring proposal to provide baseline Federal monitoring requirements and give the States flexibility to increase those requirements where appropriate. The proposal also provides for the Federal regulations to specify that States can grant waivers but that Federal regulations would not specify the requirements for considering waivers.

Flexibility Issue 1:

Give States discretion to grant waivers when warranted, and not just for susceptibility and use reasons; give States more discretion in granting susceptibility and use waivers

Preference	Option	
1.		Status quo
2.	12	Regulatory language should be structured to include only the minimum requirements of any condition. Option should be included for States to determine lesser or more stringent requirements based upon site specific conditions. (In the case of waivers, this could include county, State or even regional waiver areas.) At the same time as regulation proposal, clear guidance should be distributed to the States regarding the options which would be acceptable to EPA, with final negotiation of compliance particulars left between the State and the Region. While the goal of uniform quality in drinking water is good and should be taken to heart, the geographic and other differences which occur throughout the country should be recognized so that specific contaminants or groups of contaminants could be waived, based upon State and Regional concurrence. Attempting to include all the possibilities and probabilities will always be impossible, but guidance and agreement between States and Regions should keep the programs in some sort of comparable parallel nationwide.
3.		Eliminate waiver requirements from the regulation and place in guidance (see Generic Issue option 3)
4.		Allow States to waive initial monitoring for VOCs. The regulations currently allow waivers for initial monitoring for SOCs but not VOCs. The regulations could provide criteria for granting waivers for VOCs, consistent with the type of guidance provided for granting waivers for SOCs.
5.		To reduce State overhead, allow systems to submit waivers (under certain well-defined criteria) that become automatic unless the State disapproves. This waiver remains in force until the State rescinds it or it expires, whichever comes first.

Comments on Flexibility Issue 1

If Option 2 is adopted, clear guidance from Headquarters will be an absolute necessity. Regions and States must have a clearly defined set of acceptable options so that equity is assured across the country.

Option 4 is OK for new additions, if a vulnerability assessment is done. If not previously sampled, must do. For new PWS with no samples, must sample.

I am not in total disagreement with Option 4, which would allow waiver for initial VOC monitoring as we have for SOCs. It is important to note, however, that use of VOCs is more pervasive than SOCs and, therefore, we might find more unexpected contamination of water supplies by VOCs.

Option 5 would not work unless the state supports the waiver thoroughly with data.

Outcome

Option 2 has been incorporated in the work group's proposal to provide minimum national monitoring requirements and provide States the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate. Vulnerability is clearly the driving consideration in the State's determination to increase frequency or to grant waivers to decrease frequency. EPA would issue guidance on what would constitute an acceptable monitoring program (much like the current monitoring program). States could adopt this guidance if it chose not to develop its own, tailored program.

The Federal regulations would specify that States can grant waivers for periods up to each nine-year compliance cycle. Federal regulations would not specify the requirements for considering waivers. Instead, EPA would provide States guidance on issuing waivers. States would submit a description of their waiver program as part of their primacy package.

Flexibility Issue 2

Greater State flexibility in monitoring requirements would give water systems more source and treatment options and support the use of alternative technologies

Preference	Option
1.	Status quo
2. 6	Develop EPA guidance on alternative treatments and related small source problems. EPA regions work with states to expand existing flexibility to authorize alternative monitoring and treatment requirements. Do nothing to change the existing regulation. States treat unique sources on a case by case basis subject to EPA approval. Scope of the problem may be regional. EPA could then direct resources to those regions and states that have unique source problems and allow them to develop appropriate response. (This option is effectively the status quo with the addition of the EPA guidance.)
3. 6	Include in section 141.100 language that would allow States to develop as a part of their primacy package, a generic program for alternative system management of unique sources. This would include the ability to establish alternative sampling locations, parameters, and frequencies that reflect the unique nature of the sources. For seasonal supplies, the alterations of the monitoring schedule may be to shift from 4 consecutive quarters to only sampling during use period for a year. For transient and remote supplies, treatment and sampling may be point of use. Section 142. subpart C, State Issued Variances and Exemptions, could be expanded to include provisions for unique sources that would apply not just to MCLs but also cover the modification of monitoring requirements.
4. 7	Revise regulation to give individual States the direct authority to make decisions, and modify requirements related to unique sources and appropriate treatment and alternative technologies on a case by case basis. This option would not require prior approval from EPA for these decisions.

Comments on Flexibility Issue 2

Make State develop written plan. If not, ad hoc decisions will be made. Have regions check during inspections. Maybe add annual report requirement from State to EPA on decisions made.

Option 3 would give States and EPA D.I. programs the most flexibility. However, EPA guidance would still be useful in exercising this flexibility.

Outcome

The monitoring proposal would give States the flexibility envisioned in these options. Federal

regulations would contain minimum baseline requirements. States would have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate. States would notify EPA of its regulatory program in its primacy package. EPA then would have the option of accepting the program, denying primacy because of deficiencies in the program, or accepting the program but mandating increased monitoring frequency for one or a group of systems.

Flexibility Issue 3

Monitoring requirements should consider local conditions relating to ground and surface water

Preference Option

1. Status quo

2. 2 Headquarters could provide guidance to regional EPA offices and states which indicate that monitoring for chemical contaminants should occur during conditions which would yield the highest expected result. This monitoring will take place in the quarter which previously yielded the highest results, during the portion of the year with climatic conditions which would expect to increase the normal level, or during a time period based on laboratory and monitoring availability if previous results indicated the contaminant level was reliably and consistently below the MCL.

3. 5 Modify regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), 141.24(h)(7) by deleting language which indicates that annual monitoring must be conducted during the quarter that previously yielded the highest analytical results and substituting language which would require that monitoring be conducted during periods of highest suspected vulnerability.

4. 2 Modify regulations 141.23(d)(5), 141.23(e)(4), 141.24(f)(11), 141.24(h)(7) by deleting language which indicates that annual monitoring must be conducted during the quarter that previously yielded the highest analytical results. Substitute language which gives states the authority to allow systems to coordinate the timing of sampling of multiple contaminants, even if the time chosen is not expected to represent the highest point of vulnerability for each contaminant.

5. 6 Modify existing regulations to expand the State's authority to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. Allow the States the authority and latitude to modify (subject to EPA review) base frequencies based on unique source or use conditions. Section 141.23(a)(4) would read "The State may reduce or modify the total number of samples taken or the timing of sample collection in order to reflect unique source and/or use conditions." Modify the monitoring frequencies established in 141.23(b),(c),(d), and (e) to reflect this change.

Comments on Flexibility Issue 3

Sample timing will depend on lab capacity and scheduling; states must allow for a balanced workload throughout the year.

The detection limits for almost all parameters are low enough that vulnerability is not as much of an issue as our regulations would suggest.

Monitoring at the same time each compliance period does not necessarily ensure that a contaminant will be detected. The derivation of the highest suspected vulnerability to establish sampling may be in error. The regulations should allow states to build "vulnerability" into the monitoring program, rather than require a PWS to adhere to a rigid schedule.

Option 3 is OK with State approval.

Outcome

The work group proposal to establish minimum Federal monitoring requirements and allow the States the flexibility to increase monitoring where appropriate gives the States the discretion to consider local conditions relating to surface and ground water. The minimum Federal requirements would be the same for chemical class, surface and ground water systems, and system size. The Federal requirements would be for one sample every three years, with the sample targeted to a period of increased vulnerability. States could then use vulnerability or other considerations to increase frequency by system, geographic area, or whatever category the State deems appropriate.

Flexibility Issue 4

The requirements to take four consecutive quarterly samples for regulated synthetic organic chemicals (SOCs) during the initial compliance period are unnecessarily excessive.

Preference	Option
1.	Status Quo.
2. 9	Accomplish by regulatory change: Non-detects after one quarter of monitoring for regulated SOCs and unregulated organic contaminants should serve as the basis for waiving the remaining quarters of the initial monitoring. Where vulnerability is expected to vary seasonally, samples should be scheduled during the time of the highest vulnerability.
3.	Accomplish by regulatory change: Same as 1, except that initial monitoring is completed after two consecutive quarters of monitoring.
4.	Go further back in time to allow grandfathering of additional data. Analytical methodology should be consistent with Phase II/V methodology.
5.	Accomplish by regulatory change: Base monitoring on whether the system is "suspected" to be vulnerable. Surface water systems (SWSs), ground water systems (GWSs) which have been determined to be ground water under the influence of surface water (GWUI), systems with nitrate levels > 5 mg/L, past detects of any organic chemicals, systems in proximity to leaking underground storage tanks, etc., should be required to take four consecutive quarterly samples. Systems not in these categories would take 1 or 2 samples in the initial monitoring period.
6.	Re-evaluation and re-certification of waivers should be minimized so that implementation and recordkeeping are not a burden. One sampling event every 9 years, or when the state determines conditions have changed (e.g., on the basis of a sanitary survey), should be sufficient.
7.	One quarter (highest vulnerability) of initial monitoring should be required. If there are no detects, continue with annual monitoring, but in a different quarter (e.g., winter or fall). Over a 4-year period, each quarter's variation would be known.
8.	Baseline monitoring for GWSs should be 2 annual samples every 3 years rather than four quarterly samples. This will simplify management and tracking of schedules. Quarterly monitoring should be triggered when a detect is > 50% of the maximum contaminant level (MCL). (Quarterly sampling versus annual sampling requires an order of magnitude increase in the work effort to manage the schedules.)

9. Keep sampling requirements the same for CWSs, but NTNCWSs should only take 1 sample during the quarter of highest vulnerability.

Comments on Flexibility Issue 4

Require one quarter of data except for chemicals more likely to be present (high usage or presence) in many systems.

While not Region 7's position, Nebraska suggests: "We like the idea of one sample during each compliance period for ground water sources; however, rather than saying one negative will serve as basis for a waiver from the remaining three quarterlies, just get rid of quarterly sampling as "base" monitoring for ground water sources. Nebraska proposes: "Regulations for pesticide monitoring should be changed to require that: 1) surface water sources be sampled during four consecutive quarters during the initial monitoring period (repeat monitoring could be as currently written); 2) ground water be sampled once every three years unless there is a detect; and 3) once a ground water source is determined to be under the direct influence of surface water, then it must be sampled during four consecutive quarters if it hasn't already been done. States can increase base monitoring for certain pesticides if it is defensible. For instance, a State may consider requiring two samples every three years for atrazine since it is widely used and found in ground water in the State. Remember that pesticides are chronic health related at low levels. Let's treat them as chronic and not acute related. If a pesticide is at a level that is an acute concern, it will be found in one sample. This also holds true for VOCs.

Decrease NTNC sampling requirements.

Allow ambient surface water sampling network data to be used to reduce sampling costs.

Add VOCs to Option 2.

Option 2 should also apply to VOCs. Another acceptable scenario would be status quo, plus one sample required, with a weaker waiver.

Options 2 and 6 could be combined; they are not mutually exclusive.

Options 3 and 9 may be mixed in or added on to option 5.

For option 4, consistent methodology is important.

For Option 5, option should be one sample, not two (now says one or two).

Option 5 is not viable. If a system is not "suspected" to be vulnerable, presumably a waiver will be issued. Requirements should be the same for all systems not issued waivers. We need to simplify, not further complicate, these regulations.

For option 6, a review of waivers should be required every X years but if there are no

changes, the review should be able to say just that, especially for small systems.

Regarding options 6 and 8, a person can be exposed to water supplies at NTNC for a major portion of their day.

Need greater flexibility for ground water systems.

Option 7 makes system more complicated. Most small systems will not be able to follow. Also, 4 years frequency is not compatible with the Standardized Monitoring Framework.

Outcome

The monitoring proposal would reduce Federal monitoring requirements to one sample every three years, with the sample targeted to a period of increased vulnerability. States would have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate. Vulnerability is clearly the driving consideration in the State's determination to increase frequency or to grant waivers to decrease frequency.

Flexibility Issue 5

Surface water requirements should be flexible enough to allow for different flow conditions.

Preference Option

1. Make no changes to existing regulation.

2. 11 Modify existing regulations to expand the State's authority to consider unique source or treatment conditions when establishing base monitoring locations and frequencies. Allow the states the authority and latitude to modify (subject to EPA review) base frequencies based on unique source or use conditions. This section could parallel the construction of the sections on compositing:

   141.23 (a)(4?) " The State may reduce or modify the total number of samples taken or the timing of sample collection in order to reflect unique source and/or use conditions". This change would render the monitoring frequencies currently established in 141.23 (b),(c),(d),(e) inaccurate.

   Similar wording would have to be added to section 141.24. This type of change might also fit under 141.40 (Special monitoring requirements for inorganic and organic contaminants).

3. Drop minimum monitoring frequency requirements. Include provisions in each section establishing base frequencies as general guidelines. The State as a part of its primacy package must include their own standard monitoring protocols. With this flexibility the States would then identify groups of water systems that require specialized monitoring conditions and present them to EPA for approval as a part of their overall primacy package. If a State's plan differed significantly from the guidelines the burden of proof would fall to the state to justify the differences. If a State chose not to develop a special conditions policy, the monitoring frequency guidelines would then become the standard.

4. Modify the existing regulation to remove the requirement of 4 consecutive quarterly samples and allow States to establish alternative schedules that reflect flow conditions but maintain the minimum number of samples of 4. This would allow States to target sampling to the period of highest suspected susceptibility when flow or source conditions may make consecutive quarterly sampling less representative of the systems vulnerability. Example: A state may wish to target sampling for a surface water source to a 6 month period. That period may reflect the maximum period of vulnerability or exposure for that contaminant. 4 consecutive quarterly samples may in fact mask the contaminant concentration in the source. This option allows states to drop the consecutive requirement but would still require a minimum of 4 samples during the 6 month window.

Comments on Flexibility Issue 5

None of the options is preferred. Options 2-4 would require the state to customize monitoring schedules which could be very time consuming and resource intensive. Pennsylvania would like to see significant reductions in the base monitoring requirements, with the states having the ability through regulation to require additional monitoring on a case-by-case basis.

States should also have the authority to modify base monitoring based on the susceptibility of the source to particular contaminants (e.g., atrazine).

In Option 2, for quarterly samples, source must be sampled for every quarter for which it is being used.

Outcome

The monitoring proposal would provide the flexibility suggested in Option 2 by establishing Federal baseline requirements of one sample every three years, regardless of chemical class, ground water or surface water system, or size of system. States would then have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate, including flow conditions.

Flexibility Issue 6

The current regulations do not reflect the unique implementation problems (e.g., seasonal operation, intermittent well use) associated with transient non-community water systems (TNCWS) and non-transient non-community water systems (NTNCWS). TNCWS and NTNCWS often do not have the financial resources required to meet their regulations. TNCWS and NTNCWS have high noncompliance rates.

	Preference	Option
1.		Status quo
2.	3	NCWSs need to be educated about their regulatory requirements. They are usually not members of the American Water Works Association (AWWA) or the Rural Water Association (RWA). An outreach program is required.
3.		The frequency of sampling should correspond to the period of highest vulnerability. Compliance calculations for seasonal NCWSs should be calculated as the average over the period the system is in operation. If any only one sample would cause the seasonal average to be exceeded, then the system would be out of compliance immediately.
4.	2	The quarterly monitoring requirement is not representative. Samples should be taken at the well (since there is little or no distribution system, *per se*), once during the operating season. State discretion should provide for a more stringent schedule when high potential for contamination exists.
5.	7	Seasonal systems should sample in the quarters the system is in operation.
6.		NTNCWSs should only have to monitor for acute contaminants.
7.		NTNCWSs should only have to take one sample per compliance period.
8.		Waiver requirements for NTNCWSs should be made easier.
9.		Alternative methods, e.g., triazine screen for SOCs, should be used to target sampling.

Comments on Flexibility Issue 6

Except for schools, all NTNC and TNCWs are businesses and should be able to raise their rates in order to finance analytical costs.

We disagree with the argument that monitoring requirements for NTNCWS should be significantly less than those for CWSs. This issue could be adequately addressed by a reduction in base monitoring.

ICCs (NTNCWSs) should be removed from Phase II nitrate/nitrite monitoring as the PWSs they get water from already monitor for nitrate/nitrite.

Option 2: AWWA and RWA are not the complete answer and membership does not indicate a PWS has an adequate or correct knowledge of the regulations.

Option 6 is a very poor precedent and would cause many problems. Combine options 3 and 5.

Option 6 is not good for microbiology.

Option 9: If triazine screen is OK for small systems, it should be used on all systems.

Outcome

The preference on this issue was fairly clear to have NTNCWS only sample when they are in operation. Given that the monitoring group is recommending a significantly simplified monitoring regime, this level of detail would be contained in guidance which the States could then adopt in their regulations.

Flexibility Issue 7

Allow flexibility for nitrate monitoring.

	Preference	Option
1.	3	Status quo
2.	5	Modify regulation 141.23(d) to allow a reduction in sampling to once each three years if monitoring conducted prior to December 31, 1992, was consistently below 50% of the MCL. In addition, allow for a reduction in sampling frequency to once each three years if three consecutive annual samples do not detect nitrates.
3.	3	Modify regulation 141.23(d) to allow a reduction in sampling frequency to once each three years if multi-year sampling shows a source to be reliably and consistently below the MCL.
4.		Allow use susceptibility waivers for nitrates based upon past monitoring.
5.	4	Allow integration of nitrate monitoring requirements with other inorganic chemical triennial sampling based upon multi-year data which shows a consistent trend below 50% of the MCL.

Comments on Flexibility Issue 7

Need a provision for revoking monitoring waivers if conditions warrant.

We recommend that required nitrate monitoring of groundwater sources be reduced to once every three years if three consecutive annual sample results are $<50\%$ of the MCL, and that required nitrite monitoring for TNC systems with a sample result $>=50\%$ of the MCL but $<=$MCL be reduced from the current quarterly requirement to annually.

Regarding Option 4, it would be difficult for PWSs to demonstrate that they are not susceptible to nitrate contamination.

Outcome

The work group recommends that reductions in monitoring, after monitoring shows levels equal to or greater than 50% of the MCL, should be the same, regardless whether the system is served by ground water or surface water. The group believes that, in these situations, monitoring should be reduced from quarterly to annual if results are either reliably and consistently below the MCL, or reliably and consistently below 50% of the MCL. Further, a majority of the group believes that sampling should be reduced from annual to once every three years when results are reliably and consistently below 50% of the MCL. However, because the

group could not reach consensus on this issue, the group recommends that this issue be explored further. Possibly with better data to characterize elevated levels, consensus could be reached on a monitoring regimen which would be both protective of public health and yet allow monitoring to be focussed on real risk concerns.

Efficiency Issue 1

Reduce the cost and effort required to grant monitoring waivers for inorganic contaminants by allowing automatic reduction of sampling frequencies for IOCs.

	Preference	Option
1.	2	Status quo
2.		Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 20% of the MCL, there are a minimum of three data points; and the most recent sample results are less than three years old.
3.	3	Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if all prior sampling results are less than 50% of the MCL, there are a minimum of five data points, and the most recent sample results are less than three years old.
4.	9	Allow water systems to automatically reduce their sampling frequency for inorganic chemicals if they meet the requirements of either option 2 or 3.

Comments on Efficiency Issue 1

Support consistency of VOC and SOC monitoring schemes as well as use of past data, as long as the laboratories were certified to perform analysis of parameters.

Most historical data are distribution system data, while the new sample requirements are at points of entry. Suggest minimum of one sample per entry point prior to reduction, without considering previous results, unless previous results are point of entry.

Outcome

The preference here was for increased flexibility to reduce monitoring for inorganic chemicals if certain conditions are met. The monitoring proposal addresses this preference by establishing a baseline requirement in the Federal regulations of one sample every three years but providing the State flexibility to use vulnerability determinations to increase frequency or grant waivers to decrease frequency. EPA would put the above options in guidance which the States could choose to adopt in their regulations.

Efficiency Issue 2

The volatile organic chemical (VOC) requirements for small systems ($\leq$ 3,300 population) should be reduced. These systems took four samples in 1991.

Preference Option

1. Status Quo.

2. Keep the Standardized Monitoring Framework (SMF) but simplify the monitoring and waiver requirements for VOCs.

   Utilize existing data (grandfathering) and initial monitoring as a screen. Systems with no detects should monitor at frequencies based on (1) the level of review undertaken by the state, and (2) the population served (systems serving populations > 3,300 and systems serving populations $\leq$ 3,300). Based on the level of review, systems would be categorized as "vulnerable" (no state review other than monitoring), "non-vulnerable" (some review), and "full waiver" (as described by §141.24 (f)(8)). Criteria would be provided for differentiating between a "non-vulnerable" and "full waiver" system. "Full waivers" would be required for systems serving populations >3,300, but not for systems serving populations of $\leq$ 3,300. Reduced monitoring for systems serving populations of $\leq$ 3,300 would be established by rule (essentially the "waiver by rule"); the frequency would be the same as that under a "full waiver", i.e., once every six years. The "waiver by rule" would require some review by the state, addressing previous analytical results and how well the source is protected.

   Systems with VOC detects would monitor quarterly until reliably and consistently below the maximum contaminant level (MCL), after which monitoring would be reduced to annual. Systems of both sizes (> 3,300 and $\leq$ 3,300) would then qualify for waivers as before, or, alternatively, systems serving populations of $\leq$ 3,300 would be required to apply for full waivers.

3. 2 Repeat monitoring requirements for small systems should be reduced from annual sampling to one sample every three years.

4. Systems serving populations < 500 with no detects of any VOCs in the initial monitoring would not be required to conduct any additional monitoring.

5. 8 Reduced VOC monitoring should not be limited to small systems. Extend the concept to all systems. Once every 3 years is adequate for any size system with no detects. We are not concerned with an acute health risk here.

6. Systems which do not detect any unregulated VOCs in the initial Phase II or V sampling should never have to sample for these contaminants as regulated contaminants.

7. The regulations for VOCs found at §141.24(f)(14) require follow-up within 14 days if a contaminant is detected in a composite sample. The 14-day response time is burdensome to states that make full use of compositing. The response time should be based on whether the amount detected exceeds a certain level. If the level in the composite is below that amount, then a state should would have more time (e.g., one year) to respond. Initial monitoring could then be in the first year, and follow-up in the second. We are not concerned with chronic contaminants here. This option would reduce the implementation burden on the states.

8. 3 Where quarterly sampling conducted prior to January 1, 1993 shows no detects, the VOC monitoring during the initial compliance period should be reduced to one sample every 3 years.

Comments on Efficiency Issue 2

Support consistency of VOC and SOC monitoring schemes as well as use of past data, as long as the laboratories were certified to perform analysis of parameters.

Option 5 is acceptable if it is modified to pertain to "non-vulnerable" systems.

In option 7, delete the word "never". Make a provision for changes.

Outcome for Efficiency Issue 2

The options which were the most popular argued for reduced frequency, regardless of system size, when a pattern of non-detections is established. This concept is reflected in the monitoring proposal of establishing minimum Federal monitoring requirements of one sample every three years. States would have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate. Vulnerability is clearly the driving consideration in the State's determination to increase frequency or to grant waivers to decrease frequency.

Efficiency Issue 3

The synthetic organic chemical (SOC) sampling requirements for small systems ($\leq$ 3,300 population) should be reduced. The reduced small system sampling for SOCs currently required is inequitable.

Preference Option

1.		Status Quo.
2.	2	Same scheme as for volatile organic chemicals. Change current waiver duration from 3 years (§141.24(h)(5)) to 6 years to conform to that for VOCs.
3.		Systems serving populations < 500 with no detects in the initial monitoring should not be required to conduct any additional monitoring.
4.	3	The baseline initial SOC sampling requirement for small systems ($\leq$ 3,300 persons) should be one sample only. States should be allowed flexibility to use vulnerability to increase monitoring requirements to four samples, completely waive monitoring, or specify a time of year to sample.
5.	4	Return to the old concept of vulnerability: increase monitoring for vulnerable systems, not the other way around. Base monitoring on whether the system is "suspected" to be vulnerable. Surface water systems (SWSs), ground water systems (GWSs) which have been determined to be ground water under the influence of surface water (GWUI), systems with nitrate levels > 5 mg/L, past detects of any organic chemicals, systems in proximity to leaking underground storage tanks, etc., should be required to take four consecutive quarterly samples.
6.	7	Reduced SOC monitoring should not be limited to small systems. Extend the concept to all systems. Once every 3 - 6 years is adequate for any size system with no detects. We are not concerned with an acute health risk here. Contamination is not likely.
7.		Systems which do not detect any unregulated SOCs in the initial Phase II or V sampling should never have to sample for these contaminants as regulated contaminants.
8.	5	The regulations for SOCs found at §141.24(g)(7) require follow-up within 14 days if a contaminant is detected in a composite sample. The 14-day response time is burdensome to states that make full use of compositing. The response time should be based on whether the amount detected exceeds a certain level. If the level in the composite is below that amount, then a state should have more time (e.g., one year) to respond. Initial monitoring could be in the first year, and follow-up in the second. We are not concerned with chronic contaminants here. This option would reduce the implementation burden on the states.

9. Phase V delayed SOC monitoring for systems with < 150 service connections. Change the rule to delay all Phase II SOC monitoring for these systems as well. The regulations should be changed so that systems with < 150 service connections wouldn't have to monitor until January 1, 1996. This would reduce the implementation burden on the states, for example, 60% of the systems in one state have < 150 service connections. Since the regulation cannot be promulgated for several years, EPA should provide interim guidance allowing this option.

10. The initial and repeat SOC sampling for small systems (systems serving populations of $\leq$ 3,300) should be one sample per entry point every 3 years.

Comments on Efficiency Issue 3

Support consistency of VOC and SOC monitoring schemes as well as use of past data, as long as the laboratories were certified to perform analysis of parameters.

Option 6 is acceptable if it is modified to pertain to "non-vulnerable" systems.

Option 9: In its rule, EPA keeps switching from population size to number of service connections as differentiating factors. Also, to make things more complicated, EPA does not apply the same factor on all rules packages. Phase II monitoring starting date is 1-1-93 for all the systems, while Phase V has two starting dates: 1-1-93 for systems >150 service connections and 1-1-96 for systems <= 150 service connections. Both rules should be assigned the same dates.

Option 10 is viable if limited to ground water systems.

Outcome

The preferred options support no difference in sampling between large and small systems, as well as the concept of using vulnerability to determine increased frequency over a minimum baseline of monitoring. These concepts are incorporated in the monitoring proposal. States would have the option to increase frequency of monitoring by system, geographic area, or whatever category the State deems appropriate. Vulnerability is clearly the driving consideration in the State's determination to increase frequency or to grant waivers to decrease frequency.

Option 8 contained the sentiment that follow-up for SOC monitoring should not have to occur within 14 days. Because the Federal regulations would be substantially simplified under this proposal, that level of detail in the regulations would be inappropriate. However, that provision could be contained in guidance which States could then adopt.

Grandfathering Data Issue

VOC sampling conducted before January, 1993, which included all regulated and non-regulated VOCs and which did not have any detections of these contaminants should be allowed to be used as basis for reducing VOC sampling. sampling (I.10 and I.18).

Preference Option

1. 4 No change is needed because current regulations allow waivers after initial sampling has been satisfied (either by four quarterly samples after 1993 or by one grandfathered sample before 1993)

2. 10 Modify regulation 141.24(f) to allow for sampling VOCs once each three years if there are no detections in the first round of sampling which included all regulated and unregulated VOCs and which may have been completed by December 31, 1992, or which may be completed subsequent to that time for a new system or new source.

Comments on Grandfathering Data Issue

New option: vulnerable systems should monitor annually; non-vulnerable systems every six years. No automatic reduction after three years.

Outcome

The concept of monitoring once every three years for systems which have a history of non-detections has been built into the monitoring proposal. The Federal regulations would require a minimum monitoring requirement of once every three years, with the sample targeted to a period of increased vulnerability. States would have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate. Vulnerability is clearly the driving consideration in the State's determination to increase frequency or to grant waivers to decrease frequency.

Timing Issue

Consolidate Phase V monitoring with initial Phase II monitoring; focus on systems with less than 150 service connections

Preference	Option	
1.		Status quo
2.	5	Provision should be made to allow existing systems to take the initial quarterly sample for Phase II, IIb, and V; if no detect occurs, the State should have the option to permit the PWS to continue all monitoring at the current reduced level, based on analytical results from monitoring conducted under Phase I, II or V (keeping Phase VIb in mind). This will help states and supplies cope with the laboratory capacity program, prevent a return to quarterly monitoring each time a new regulation package is promulgated and yet identify the presence of any contaminant through past monitoring by including unregulated contaminant monitoring as a "grandfather-able" sample. Clear guidance should be provided to the State outlining the provisions acceptable to U.S. EPA, such as the vulnerability of the system, past monitoring results, site specific conditions and contaminant specific considerations, with final negotiation of compliance particulars left between the State and the Region.
3.	2	Defer initial compliance sampling for Phase II systems serving > 150 population until 1996 to eliminate the problem of duplicative monitoring due to existing schedules. This will eliminate the duplicative sampling problem in Phases II and V, but will not address any future rulemaking schedule problems. (Past monitoring data which showed any detect may well have been investigated; when this is the case, public health is not potentially jeopardized by the delay.)
4.	6	Do Options 2 & 3 together to address the problem for future regulations while providing immediate relief for small systems.

Comments on Timing Issue

The new Standardized Monitoring Framework eliminates quarterly monitoring. This is not an issue. Those systems that perform vulnerability assessments can reduce monitoring.

Option 3 should read "< = 150 service connections", not > "150 population."

Don't use service connections; stick with population served.

Outcome

Commenters seemed to lean in the direction of solving not only the current problem but future ones as well. Not only should monitoring for systems with less than 150 service connections wait until 1996, but we ought to remove any subsequent initial quarterly sampling requirements for SOCs if all currently regulated SOCs have non-detects. The same logic would apply to VOC sampling requirements.

Changing the requirement for systems with less than 150 service connections would require proposed and final rulemaking; that change could not be made in time to affect the 1993-1995 monitoring period. However, the rest of the proposal to reduce initial sampling frequency for systems which are not vulnerable is incorporated in the monitoring proposal. Federal regulations would contain baseline monitoring requirements of one sample every three years for all chronic contaminants. States would have the flexibility to increase monitoring by system, geographic area, or whatever category the State deems appropriate.

Lack of current information available to implement regulations
Issue 1

Acrylamide and epichlorohydrin treatment technique requirements are unclear and the manufacturing information necessary to implement them are unavailable.

Preference Option

1. Status quo

2. 6 Develop headquarters guidance which would include: (1) a product listing, including manufacturers for all water treatment chemicals which contain acrylamide and epichlorohydrin, (2) health effects data in layman terms which will allow water system personnel to understand the basis for regulating the dosages of water treatment chemicals containing these contaminants, (3) a simple form which could be used by water systems to obtain certification from their chemical supplier that the regulations were being met, and (4) in the interim, issue enforcement guidance which would allow States to delay implementation.

3. 7 Delete paragraph 141.111. Request NSF and other water treatment chemical certifying groups to include evaluation of acrylamide and epichlorohydrin content in the product approval process.

Comments on Information Issue 1

Too labor intensive, not to mention dollar resources. What happens if we overlook a product? The manufacturers of these new products should be "prodded" to reveal the levels of these two components even if it is only in relation to our standard. If a product is labelled so that the user can make an educated decision then that product should sell better than others that don't provide enough information.

New option: EPA should require labelling by manufacturers that their products meet the requirements of Section 141.111.

Outcome

The preference is to shift the burden both to EPA and to national certifying groups for providing the information necessary to implement treatment technology requirements. In the interim, States should be able to delay implementation of the requirements. These two sentiments have been incorporated in the monitoring proposal.

Lack of current information available to implement regulations
Issue 2

Need to provide States technical information and support documents for each contaminant (fate and transport, likely sources, etc.)

Preference	Option	
1.		Status quo
2.	11	EPA Headquarters should develop one page fact sheets on each contaminant (regulated and unregulated) to include occurrence data, persistence, health effects, and treatment process that is covered by Drinking Water Regulations. These fact sheets should be updated as additional information, including analytical methods, become available.
3.	2	EPA should provide technical training to State staff regarding the significance of drinking water contaminants which are regulated.
4.		Existing health advisories for regulated contaminants should be revised and republished in a format understandable by the general public. Additional health effects bulletins should be developed to address all drinking water contaminants which are regulated.

Comments on Information Issue 2

The fact sheets should be similar in format to the draft acrylamide fact sheet.

Implement Options 2 and 3; Option 2 is the minimum which should be adopted. Option 2 fact sheets should be in two forms: one for technical staff and one for the general public.

Option 2: include trade names.

Option 3 is good with extra resources.

Health advisories should take the form of fact sheets, not necessarily one-pagers, and should include information on treatment, potential sources, occurrence and analytical methods.

Outcome for Information Issue 2

The preference was for EPA to develop fact sheets, probably one for a technical audience and a different one for a public one. If resources permit, EPA should also provide training. These suggestions are contained in the monitoring proposal.

Inconsistency Issue 1

Reconsidering the logic of allowing ground water systems to reduce monitoring when reliably and consistently below the MCL but surface water systems can only reduce monitoring when <50% of the MCL.

	Preference	Option
1.	3	Status quo
2.	9	Parallel construction: Modify 141.23 (d)(3) to reflect the same wording as 142.23 (d)(2) {"reliably and consistently less than the MCL"}. This is consistent with the language provided in 141.23(e)(3) for nitrite monitoring frequency. This is also similar to the threshold established for reducing organic monitoring after detection and initial follow-up sampling. This synchronization would allow the states to develop a single policy on how it would determine when a source was "reliably and consistently less than an MCL".
3.	5	Parallel Construction: Modify 141.23 (d)(2) to reflect language in 141.23 (d)(3) {"less than 50 percent of MCL"}. This is consistent with the trigger that increases nitrate monitoring "greater than 50 percent of the MCL" which is for both ground and surface waters." In order to establish a uniform use of the threshold criteria, section 141.23(e)(3) should be changed likewise. This would set a uniform measure for nitrate and nitrite of " >50 percent of the MCL".

Comments on Inconsistency Issue 1

I think we need to determine the reasons for the difference if it truly is one. If not, make a determination about the percent of the MCL. Maybe 50% is not appropriate for all contaminants if that's what we're talking about.

In option 2, nitrate M/R status average.

Outcome

The work group recommends that reductions in monitoring, after monitoring shows levels equal to or greater than 50% of the
MCL, should be the same, regardless whether the system is served by ground water or surface water. The group believes that, in these situations, monitoring should be reduced if results are either reliably and consistently below the MCL, or reliably and consistently below 50% of the MCL. However, because the group could not reach consensus on this issue, the group recommends that this issue be explored further. Possibly with better data to characterize elevated levels, consensus could be reached on a monitoring regimen which would be both protective of public health and yet allow monitoring to be focussed on real risk concerns.

Inconsistency Issue 2

How can compositing be allowed for organic contaminants when repeat monitoring is triggered by detection at the MDL?

	Preference	Option
1.	3	Make no changes to the regulation. Provide technical assistance to states and PWS in the form of guidance on which analytical methods can meet the MDL < 1/5(MCL) test. This would not address the issue of sample dilution. However, this method would allow a number of systems to composite samples and most likely avoid repeat sampling because of the effectively raised repeat monitoring trigger.
2.	6	Change the repeat sampling trigger for all organic contaminants to a higher level (perhaps PQL). This would then allow for an effective composite procedure that would define the composite repeat trigger as the PQL/# of samples in the composite. This would maintain an equity between single and composite samples. The shift from the MDL to a higher trigger such as the PQL may be appropriate since the MDL is a laboratory limit and the PQL more closely represents a laboratory and regulatory standard. In general the PQL is between 5 and 10 times the MDL and represents the 95% confidence interval for detection. The current test that compositing can not be used if the MDL > 1/5(MCL) could be retained. It does remove the composite option when the MCL is close to the detection limit.
3.	6	Remove current detailed language on compositing for organic (and inorganic) compounds from the regulation. Add: "The state may reduce the total number of samples a system mistake by allowing the use of compositing." Along with a lab certification program the state can opt for compositing as outlined in its plan. As the regulation currently reads, compositing is a state option. With general guidelines from EPA, States could develop an approved method of compositing that makes sense analytically as well as economically. In the absence of such a State policy there would be no compositing for organic contaminants.
4.		Allow no sample compositing for organic contaminant monitoring. Maintain compositing for IOCs.
5.		Allow compositing for SOCs but not for VOCs for the reasons described above. Compositing for SOCs should be consistent with changes similar to those described in Option 2.

Comments on Inconsistency Issue 2

The definition of what the Agency means by compositing needs to be clearly stated. The option discussed seems to go back and forth between two definitions of composites: 1) combining samples from different sources that are used to supply raw water to a utility, and 2) combining multiple samples from one source. A system should supply results on what it supplies users with. If that's a mixture, the mixture should be sampled.

There is an apparent misunderstanding about the resampling trigger for SOCs. The MDL must be less than one-fifth the MCL to avoid diluting one sample with a level above the MCL with four samples with no contamination to a level that cannot be detected by the methodology. The detection limit is used for resampling because organic compounds represent contamination of the source and unless it is identified, it could get worse.

Outcome

There was no clear consensus on how to treat compositing. Because the monitoring proposal would significantly simplify Federal monitoring requirements, compositing would not be addressed in Federal regulations. Compositing would be addressed in guidance, which States could then choose to adopt. The work group could not reach consensus on how to address compositing in guidance. Thus, no recommendation on this issue has been made.

Chemical Class Issues

The monitoring subgroup considered monitoring options by chemical class. For each chemical class, options were provided for initial sampling frequency, trigger level, repeat frequency when results exceeded the trigger, repeat frequency when results were below the trigger, and the definition of reliably and consistently below the MCL. Options, and their preferences, are listed for each chemical class.

Comments which applied to all chemical classes are provided below:

Above all else, make requirements for the three groups (IOC, SOC, and VOC) consistent with each other, even if there is a little overkill in one and underkill in the other.

Surface water samples should be taken during low flow.

Allowing sampling to be variable in the definition of reliably and consistently below the MCL should take into consideration whether system modifications have been made to correct the problem.

Monitoring goals should be: no delay of program implementation, enforceability, simplicity, and reduce sampling cost for small systems.

Any scheme should allow for EPA or the states to increase sampling for individual systems, and to enforce against systems intentionally sampling for low results.

Waivers should last for nine years, with one sample required every nine years.

Risk analysis is difficult to discern for everyone (including EPA) but particularly for states because of limited resources (money, qualified personnel).

Initial Sampling

PWSs < 150 service connections begin initial sampling in 1996-1998.

Same sampling frequency of non-acute contaminants for PWSs < 3,300.

One sample every three years for PWSs < 3,300, with no change for bigger systems.

Use or susceptibility waivers of initial sampling available only for asbestos and dioxin. Only use waivers of initial sampling available for other contaminants.

No change in grandfathering provisions.

Repeat sampling

No change in trigger levels. Under trigger levels, PWSs <3,300 would sample once every three years for IOCs, SOCs, and VOCs. No change for PWSs >3,300. Above the trigger level and above the MCL, one sample per quarter unless changed by enforcement action . Above the trigger level but below the MCL, one sample per quarter until four samples are below the MCL; then sample once every three years.

Chemical Class Issues: Inorganic Chemicals

Initial Sampling Frequency

	Preference	Option
1.	3	Status quo
2.	8	Once every three years
3.		Twice every three years
4.		Three times in three years
5.		Once per year
6.		Frequency dependent upon vulnerability of sampling point

Trigger Level

	Preference	Option
1.	5	Status quo
2.		PQL
3.		One-fourth of the MCL
4.	7	One-half of the MCL
5.	4	MCL

Repeat Frequency when Results Below the Trigger

	Preference	Option
1.		Status quo
2.	12	Once every three years
3.		Twice every three years
4.		Three times every three years
5.		Once per year
6.		Frequency dependent upon the vulnerability of the sampling point

Repeat Frequency when Results Exceed the Trigger

	Preference	Option
1.	7	Status quo
2.	4	Once every six months
3.		Twice per year
4.		Three times per year
5.	6	Once per year

Definition of Reliably and Consistently Below the MCL

	Preference	Option
1.	3	Status quo
2.	2	1 sample
3.	3	2 samples
4.	5	3 samples
5.		4 samples
6.	2	Variable dependent upon numerous factors

Inorganic Chemical Comments

IOCs option does not have a clear distinction between surface water and ground water. This is confusing.

For the IOCs, acute contaminants should be monitored separately.

Chemical Class Issues: Volatile Organic Chemicals

Initial Sampling Frequency

	Preference	Option
1.	4	Status quo
2.	5	Once every three years
3.		Twice every three years
4.		Three times in three years
5.	4	Once per year
6.		Frequency dependent upon vulnerability of sampling point

Trigger Level

	Preference	Option
1.	5	Status quo
2.	3	PQL
3.		One-fourth of the MCL
4.	5	One-half of the MCL
5.	3	MCL

Repeat Frequency when Results Below the Trigger

	Preference	Option
1.		Status quo
2.	11	Once every three years
3.		Twice every three years
4.		Three times every three years
5.		Once per year
6.		Frequency dependent upon the vulnerability of the sampling point

Repeat Frequency when Results Exceed the Trigger

	Preference	Option
1.	8	Status quo
2.	2	Once every six months
3.		Twice per year
4.		Three times per year
5.	3	Once per year

Definition of Reliably and Consistently Below the MCL

	Preference	Option
1.	2	Status quo
2.		1 sample
3.	3	2 samples
4.	2	3 samples
5.	2	4 samples
6.	3	Variable dependent upon numerous factors

Volatile Organic Comments

For the VOCs, the MCL is based on the level of concern; therefore, increase monitoring if the sample is at the MCL.

Chemical Class Issues: Synthetic Organic Chemicals

Initial Sampling Frequency

	Preference	Option
1.	2	Status quo
2.	5	Once every three years
3.		Twice every three years
4.	2	Three times in three years
5.	3	Once per year
6.	2	Frequency dependent upon vulnerability of sampling point

Trigger Level

	Preference	Option
1.	3	Status quo
2.	4	PQL
3.		One-fourth of the MCL
4.	5	One-half of the MCL
5.		MCL

Repeat Frequency when Results Below the Trigger

	Preference	Option
1.		Status quo
2.	11	Once every three years
3.		Twice every three years
4.		Three times every three years
5.		Once per year
6.		Frequency dependent upon the vulnerability of the sampling point

Repeat Frequency when Results Exceed the Trigger

	Preference	Option
1.	9	Status quo
2.	2	Once every six months
3.	2	Twice per year
4.		Three times per year
5.	2	Once per year

Definition of Reliably and Consistently Below the MCL

	Preference	Option
1.	3	Status quo
2.		1 sample
3.		2 samples
4.	2	3 samples
5.		4 samples
6.	4	Variable dependent upon numerous factors

Synthetic Organic Comments

Because of the many and costly methods required for SOC analysis, the ability for states to grant regional or some sort of blanket waiver is important.

Outcome of Chemical Class Issues

Commenters indicated a strong preference to treat chemical classes the same. Except in the case of trigger level, preferences tended to be consistent with that general philosophy. Based on these results, the work group proposes that Federal regulations contain baseline monitoring requirements of one sample every three years. This requirement would be the same for all chemical classes for the initial sampling period and for repeat monitoring when initial monitoring results fall below the trigger level. Repeat monitoring would be quarterly when monitoring results exceed the trigger level. For trigger level for inorganic chemicals, there was strong preference to retain the trigger at the MCL. There was substantially less consensus regarding the trigger level for the organic chemicals. Given the wide range, the group recommends that the trigger level be the MDL, or 10% of the MCL, whichever is higher.

REGULATORY REFORMATTING ISSUES

REGULATORY REFORMATTING ISSUES

Problem Statement: *The regulations are poorly organized, cryptic in expression and generally difficult to understand.*

Desired State: The structure should be organized and follow a hierarchial outline format. The presentation should be simple and the style of expression should be concise.

Option 1: Status quo, leave the format alone.

Option 2: Reorganize the regulations for Phases I, II, IIB and V according to a generic outline (see sample below). The goals are: centralization of common provisions *e.g.*, sampling point definitions; clear language; minimization of cross-referencing and effects on other regulations *e.g.*, radionuclides; and the inclusion of a template for cross-walks.

Option 3: Reorganization all of Part 141 (Radionuclides, Disinfection By-Products, etc.).

Option 4: In addition to any option above, provide a locational index, as a supplement to the regulations, for finding any of the basic requirements for IOCs, SOCs and VOCs, *i.e.*...initial monitoring requirements, grandfathering provisions, trigger levels, repeat monitoring, MCLs, BATs, etc.

SAMPLE OUTLINE

a. MCL or Treatment Technique.
b. Best Available Technologies (BATs).
c. Monitoring: explain initial monitoring and grandfathering, trigger levels and repeat monitoring.
d. Waivers: explain term of waiver, minimum sampling and criteria.
e. Analytical Methods & Criteria.

Results of Tally:

Option #1, the status quo, received 7 NO tallies. Option #2, reformatting just the Phase I/II/V Regulations, received 29 tallies. Option #3, reformatting the entire Part 141, got 23 tallies. Option #4, to provide a locational index to the regulations, received 28 tallies.

It seems clear that Option #2, reorganization of just the Phase I/II/V Regulations, reflects the strongest preference. Also obvious is that Option #4 scored very high. This not-mutually exclusive selection could be implemented with or without any change to the status quo.

The reorganization of the entire Part 141, Option #3, did get a considerable number of tallies. The Workgroup will need to examine the practicality of this recommendation because of the negatives associated with the timing for this option to occur.

Comments Submitted

Option #3 definitely needs to be done, but Option #2 can be done quicker and will make a nice test case. In the end, the regulations should be consolidated, not written as individual rules (i.e., SWT, Lead & Copper, Phase II) within the CD.

We also support Option #3, but do not believe it is a practical choice for the near future.

Option #2 might be a good idea but would want to see a more thorough sample outline in order to more fully understand what Option #2 might really look like.

Reformatting of the regulations should be done before additional new regulations are promulgated.

Options #1-4. We also support Option #3, but do not believe it is a practical choice for the near future.

Methodologies (e.g., VOC analyses) should be in the appendices or a separate section of the rule, rather than being incorporated among the other regulatory requirements.

The regulations should include headings for each paragraph that capsulize what requirements are contained in that paragraph, e.g., "Compositing requirements for VOC's," "Compliance calculations for IOC's."

Organization of the regulations is not a major concern. We do, however, find it very confusing when only the amended portion of a regulation is published in the Federal Register and cross-references are made to a portion of the regulation which does not appear in the Federal Register. We recommend that each time a section of the regulation is amended, the entire section be published, as well as any referenced sections. In addition, more frequent publication of the entire regulation and less frequent publication of minor regulation amendments would greatly limit confusion. A more detailed, better organized summary of what is included in the amended regulation and what requirements an amendment eliminates would also be very helpful.

A locational index to the regulations is needed. The drinking water regulations typically have an outline for the preamble but nothing for the regulations. Indices are needed for both.

If nothing else is done, Option #4 should be implemented as a means to better understand the status quo.

UNREGULATED CONTAMINANT ISSUES

UNREGULATED CONTAMINANT MONITORING ISSUES

SUMMARY OF REGIONAL PREFERENCES, COMMENTS, AND RECOMMENDATIONS

This document describes the issues used by the workgroup to develop its recommendations for the unregulated contaminant monitoring program (UMC). Along with a general discussion of the preferred options, it summarizes the responses to the original issue paper. A summary of the data that was submitted to the workgroup can be found in the tables and figures of Appendix A. The tables include the raw data as well as adjusted average scores. Appendix B catalogs the comments submitted to the workgroup with the UMC tally sheets.

Many of the responders had difficulty interpreting the tally sheet instructions, as a result some of the responses were not readily comparable without some manipulation of the raw data. In addition to the raw tally of regional preferences, Appendix A also includes the re-coded or adjusted scores. A "normalization" (based on 15) process was used to preserve the internal ranking of preferences found in each region. Both positive and negative preferences were re-coded in order to develop preferential average scores for each option. Figure 1 is a plot of the adjusted average positive and negative preferences for each option. Figure 2 is a simple tally of regional positive and negative preferences.

BACKGROUND:

The options described in the UMC issue paper outlined possible changes that would alleviate many of the existing problems associated with the current program. The issues and options were divided into two major categories. Part I looked at the apparent inconsistencies related to repeat monitoring requirements for the unregulated contaminants found in the SDWA with the regulatory language found in the Phase II/V. The original issue paper described five options for Part I. Part II looked at specific options that could be implemented by EPA which would reduce the impact of the UCM on water systems. It described fifteen different options broken down into four different categories. These options addressed both short term (specific) changes to the UCM program as well as fundamental changes. The options described in Part II were not mutually exclusive. A detailed description of all of the options can be found in the original issue paper that was sent out with the preference tally sheets.

EVALUATION OF THE OPTIONS:

Figure 1 displays the average adjusted positive and negative regional preferences for each option. Figure 2 is a simple tally (frequency distribution) of the positive and negative preferences of each region. By comparing these two figures obvious positive and negative preferences can be identified. Similarly those options that did not receive a consensus across the regions can be identified by the combination of positive and negative preferences.

PART I:

Based on the regional responses regulatory options 4 and 5 appear to be the preferences.

Option 4: Drop repeat unregulated monitoring requirements from SDWA.

This would drop the repeat monitoring requirements from the SDWA. The direction found in the Phase II/V regulations for multiple sample initial monitoring would be retained. This option questioned the need for scheduled repeat monitoring of unregulated contaminants. The current Phase II/V regulations do not have repeat monitoring requirements. It would require a modification of the SDWA to remove the current inconsistency between the statute and the regulations. This option received the most positive preferences and received no negative preference tallies.

Option 5: Drop SDWA statute requirements for unregulated contaminant monitoring.

This option tied with option 4 for the most positive preferences cast by the responders. However it did receive 1 regional negative preference. This option differs from option 4 in that it removes all language concerning unregulated contaminant monitoring from the SDWA. When and where unregulated contaminant monitoring is needed, it would be implemented through the Phased regulations. Authority would be maintained but not explicitly detailed in the SDWA. This option would require a statutory change.

Option 3: Modify and remove inconsistency in both the SDWA and Regulations.

This option did receive a large number of positive preferences, although not as many as options 4 & 5. This option calls for the modification of both the statute and regulations in order to synchronize repeat monitoring requirements with the timeline of the standard monitoring framework (6 or 9 yrs). Not all regions supported this option. However the positive response at least, suggests a desire to see the regulatory/statutory inconsistency with regard to repeat monitoring eliminated.

Based on the responses to options 4 & 5; there is direction to the workgroup to recommend changes to the SDWA dropping explicit language for repeat unregulated contaminant monitoring. By rendering the SDWA silent on repeat monitoring the future option for repeat monitoring via regulation is still preserved. However the combination of these two options suggest that EPA should seriously consider the value (vs. expense) of repeat monitoring requirements for all unregulated contaminants.

PART II:

The fifteen options described in Part II were not exclusive. Responders were able to mark a number of both positive and negative preferences. For that reason it is important to recognize that the workgroup recommendations to EPA may not be limited to a single option. The options described by Mechanisms I through IV, addressed fairly narrow changes to the existing program that would reduce the implementations impact of the UCM program on PWS and states. The options listed under Mechanism V, dealt with changes that went to the core of the UCM program. For this set of options, most require both regulatory and statutory changes.

A number of the options described under mechanism I through IV, received only positive scores. These are clearly options that should be explored further by EPA. These included options I.2, IV.4, and IV.5.

Option I.2: Remove Waiver Restrictions on VOC Contaminants

This option would remove the waiver restrictions for unregulated monitoring of VOCs that are currently found in the regulations. It would allow waivers for the unregulated VOCs in a manner similar to the waiver process for regulated VOCs. If changes are made to the regulated waiver process for VOCs as a result of the workgroup's recommendations, similar changes should be considered for the unregulated VOCs.

Option IV.4: Reduce Monitoring Frequency For Unregulated Contaminants.

This option questions the need for 4 consecutive quarters of sampling data as a part of the initial monitoring requirements. This option would recommend that EPA consider reducing the monitoring frequency to either annual or semi annual sampling. Such a reduction in frequency would still provide a large data set of occurrence information but still reduce the resource impact on individual systems.

Option IV.5: Remove Contaminants From Unregulated List as Contaminants are Proposed for Regulation

This option would effectively defer monitoring of certain unregulated contaminants until such time as they were scheduled to move to the regulated contaminant list. In the case of Phase II/V, this would remove the unregulated monitoring requirements for Endothal, Glyphosate and Diquat until Phase V implementation.

Option II.2: Expanded State Authority for System Waivers

In addition to the options described above Option II.2 also received a strong positive response although did receive some negative responses. Because of the strength of the positive

preference rating relative to the negative rating, this option also warrants further consideration by EPA.

This option may be similar to option I.2, in that it looks at expanded flexibility for state waiver decision concerning unregulated contaminants. A workgroup recommendation to EPA on Option I.2 could be expanded to reflect any increased flexibility for the waiver process in general. Again comments suggest that changes made in the unregulated program should be consistent with those made in the regulated waiver process.

Mechanism V: Option 3: Obtain Occurrence Data Through EPA Surveys.

This option received one of the strongest positive preference rating of any of the PART II options. It is clearly a marked departure from the existing UCM program, and would require statutory, regulatory, as well as significant changes in resources allocations in order to implement it. In general, comments on this section (V.) questioned the efficiency, fairness, and general rationale for the current approach to the UCM program. It appears to be an expensive and perhaps excessive burden on PWSs and the states.

The responses to the options in this section clearly suggested that EPA (and congress) should consider an alternative model for the collection of unregulated contaminant occurrence data. Some process by which EPA would conduct targeted and designed assessments would be the "best" way to generate the needed unregulated contaminant occurrence data. There was strong positive preference for changes to the existing method however there was disagreements on how that program should be structured. The workgroup recommendations considered the general tone of the responses to this sections when it developed its final recommendations.

APPENDIX A: DATA TABLES AND FIGURES FOR UNREGULATED CONTAMINANT MONITORING OPTIONS

Table 1: Raw Data Submitted By Regional Offices

+/-	I	II	III	IV	V	VI	VII	VIII	IX	X	JA	DR
R1		/1		/1	/2	/1		/2	1/2		/3	/1
R2		/1		/1	/1	1			/2	1	1	/1
R3		1		3	2	1		1	/1	1	1	/1
R4	1		3	1		2		3	3	2	1	
R5		2	4	2	1	1	1	3	1	/1		1
I 1	2	4	2/1	7/1	1	4/1	2/2	10	1/1	1.7	2	
I 2	1	1	5	7	1	8	6	4	2	1	.5	
II 1	1	4	3	4		4/1	/1	3		2.3	2.5	
II 2	3	1	4	12		4/1	6	7	6	1.3	1	
III 1	1	/1	2	3	1	1/4	10/4	6/3	3/2	0.3	1	
IV 1	1	1/1	9/1	3		/1	5	5	3	/.3		
IV 2	1	1	15/1	1		6	9	7	/2	2.3		2
IV 3	1	3/1	3	2	1	5	6	3	3	/.3	.5	/1
IV 4		1	6	3		6	5	12	5	1	1	
IV 5	2	1	11	17	1	1	15	8	6	1	2	
V 1	1	1/1	4	9		/1	1	5	3	0.7	2	
V 2	/2	1	/2	/1		1/1	1/1	2/2	1	/.7		/1
V 3	1	2	8/1	4	1	14	19	5/1	4	2.7		6
V 4	/1	3/1	1/2	3		2	1/1	1/3		/.3	2.5	/1
V 5		2/1	5/1	10		3	17	/2	1/1	.7/.3		7

APPENDIX A (continued)

Table 2(A): Re-coded & Adjusted Regional Preferences (Positive)

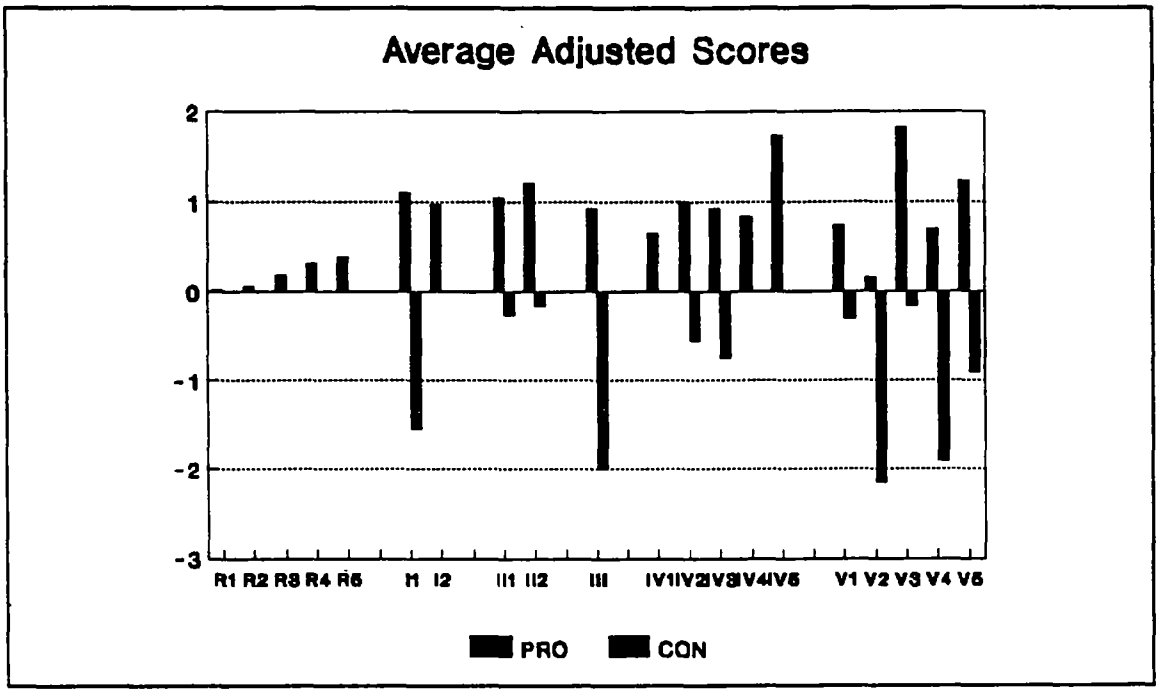
+	I	II	III	IV	V	VI	VII	VIII	IX	X	JA	DR	SUM	AVE.
R1									.2				.2	.02
R2						.2				.25	.33		.78	.07
R3		.33		.5		.2		.14		.25	.33		2.41	.2
R4	1		.43	.17		.4		.43	.6	.5	.33		3.86	.32
R5		.66	.57	.33		.2	1	.43	.2			1	4.72	.39
I.1	2	2.3	.4	1.2		1	.3	1.9	.3	1.8	2		13.2	1.1
I.2	1	.6	1	1.2	2.5	2	.9	.8	.7	.5	.5		11.7	.98
II.1	1	2.3	.6	.7		1		.6		.8	2.5		12.6	1.05
II.2	3	.6	.8	2.1		1	.9	1.3	2.3	1.5	1		14.5	1.21
III.3	1		.2	.5	2.5	.3	1.5	1.2	1.2	1.5	1		11.1	.93
IV.1	1	.6	1.7	.5			/7	1	1.6	.8			7.9	.66
IV.2	1	.6	2.8	.2		1.5	1.3	1.3		1.5		2	12.2	1
IV.3	1	1.7	.6	.4	2.5	1.3	.9	.6	1.2	.4	.5		11.1	.93
IV.4		.6	1.2	.5		1.5	.7	2.3	2	.4	1		10.2	.85
IV.5	2	.6	2.1	3	2.5	.3	2.2	1.5	2.3	2.4	2		20.9	1.74
V.1	1	.6	.8	1.6			.1	1	1.2	.6	2		8.9	.74
V.2		.6				.3	.1	.4	.3	.2			1.9	.16
V.3	1	1.1	.7	.7		3.6	2.8	1	1.6	2.7		6	22.3	1.83
V.4		1.7	.5	.5	2.5	.5	.1	.2		.2	2.5		8.4	.7
V.5		1.1	1.8	1.8		.8	2.5		.3	.2		7	14.7	1.23

APPENDIX A (continued)

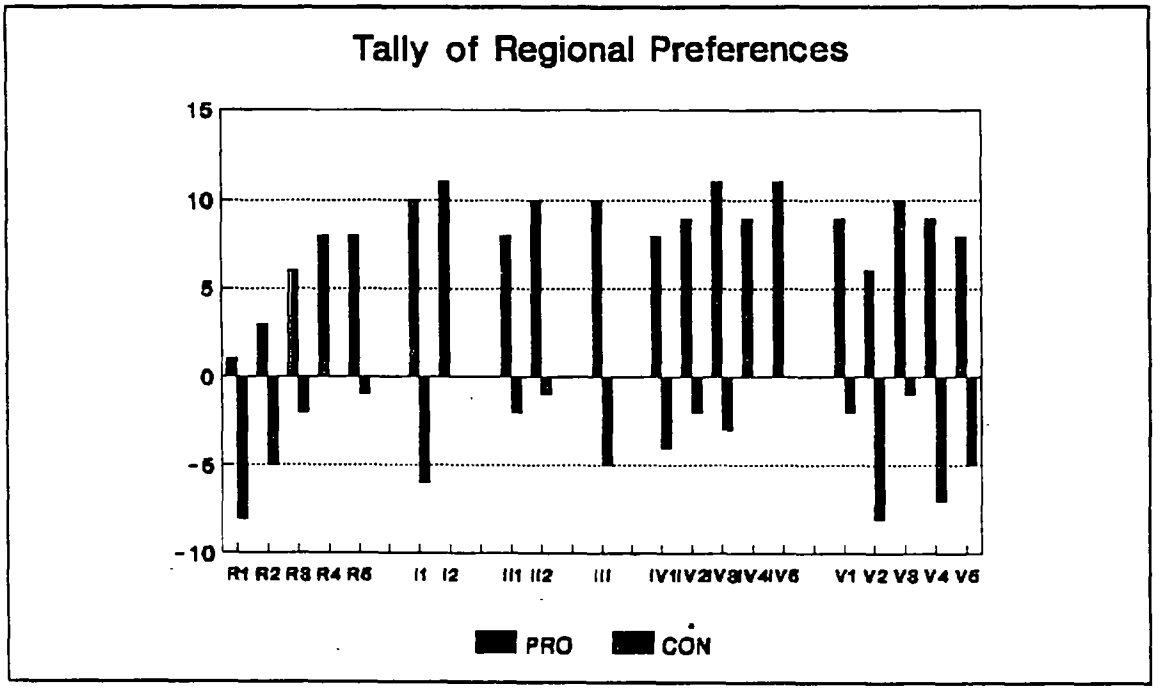
Table 2(B): Re-coded & Adjusted Regional Preferences (Negative)

-	I	II	III	IV	V	VI	VII	VIII	IX	X	JA	DR	SUM	AVE
R1		-		-	-	-		-	-		-	-	8	
R2		-		-	-				-			-	5	
R3									-			-	2	
R4														
R5										-			1	
I.1		.42	.33	1.5		.3	.7		.5				3.75	1.55
I.2														
II.1						.3	.3	.9					.6	.25
II.2						.3							.3	.15
III.3		.42				1.2	1.3		1				4.82	2
IV.1		.42				.3				.33			1.05	.45
IV.2									1				1.33	.55
IV.3		.42								.33		1	1.75	.75
IV.4														
IV.5														
V.1		.42				.3							.72	.30
V.2	2		.66	1.5		.3	.3	.6		.66		1	5.02	2.15
V.3			.33										.33	.15
V.4	1	.42	.66				.3	.9		.33		1	4.61	1.95
V.5		.42	.33					.6	.5	.33			2.18	.9

APPENDIX A:
Figure 1: Adjusted Regional Preferences (Positive and Negative)



APPENDIX A (continued)
Figure 2: Tally of Regional Preferences



APPENDIX B:

COMMENTS ON UNREGULATED CONTAMINANT MONITORING SUBMITTED BY REGION

PART I: STATUTORY & REGULATORY REQUIREMENTS FOR REPEAT MONITORING OF UNREGULATED CONTAMINANTS

Region I

Let EPA and States pay for the research; we're putting too much on the water systems without giving $ assistance (Vermont).

Region II

Primarily constituents want EPA funding for monitoring, to be administered by states, for small, targeted areas to determine occurrence, and hence, a need for regulation.

Region V

Modify Option 3 for qualitative analysis of parameters based on 6 yr cycles unless spills occur or it is a Superfund site.

Region VI

Modification of Option 3: Only if unregulated contaminants can be detected using current required methodologies.

Region VII

General comment: Unregulated contaminant data gathering is largely a waste of time/money.

Option 4: EPA should not require every PWS to monitor for all contaminants. It is foolish to monitor as unregulated those that are planned to be regulated. Use this provision wisely.

Option 5: The number of unregulated contaminants should be reduced to a very small number. Why include contaminants that are already planned for regulation.

Region VIII

Option 1: This is a needless waste of money for most systems.

Option 4: Collection of data may be warranted in many cases, but repeating the sample isn't necessary.

Option 4,5: Either of these options would be acceptable.

General Comment: The current requirements are too confusing, too difficult to implement within the standardized monitoring framework and there is too much potential for accidental non-compliance.

Region IX

Options 1,2,3: Considering limited resources, repeat monitoring is probably not cost effective (CA.).

Options 1 & 2: These are inconsistent with the standard monitoring framework. Will result in additional costs for some systems (CA.).

Option 3: only acceptable if repeat monitoring cycle is 6 or 9 yrs (CA.).

Region X

Option 5: Once an alternative data gathering program is adopted that addresses the needs and concerns of both the agency & states, I would support dropping the current program. A commitment of both State and EPA research resources in this area would be appropriate. If we move forward with the development of an alternative unregulated contaminant data gathering program, I do not support options 3 or 4 at this time - any modifications made to the SDWA and/or regulations may not remain applicable (EPA Region-10).

PART II: INDIVIDUAL OPTIONS FOR CHANGES TO THE UNREGULATED CONTAMINANT MONITORING PROGRAM

Region III

General Comment: In Pennsylvania the % of systems detecting Phase I VOCs and unregulated contaminants increased along with an increase in system size. In addition to being more vulnerable to organic contamination, the larger systems are generally more technically capable of properly collecting samples and more financially capable of having the samples analyzed. We have also experienced fewer non-monitoring violations with the larger systems. Addressing fewer non-monitoring violations would allow staff more time to resolve identified health hazards (PA.).

Region V

Option III.1: No oversight by EPA once a state decision is made. Provision for an appeal needed for State program.

Whole concept should be eliminated.

Option V.1: Sounds good, difficult to administer.

Region VII

General Comments: Completely separate the unregulated contaminant monitoring requirements from the regulate requirements. Unregulated monitoring should be one-time only. The 5 yr repeat requirement in the SDWA must be changed, along with the requirement to add 25 new MCLs every three yrs.

+ Unregulated monitoring should target specific contaminants for which there is an identified concern, e.g., EDB, not for whole list of suspects.

+ Forums such as the National Pesticide Survey could identify contaminants that need to be regulated.

Options IV.3,4,5: These three options should be combined.

Options V.3,5: Combine these two options(3 & 5). V.3 is the (preferred) mechanism for collecting occurrence data for unregulated contaminants.

Region VIII

I.1: Prefer a combination of options I.1 & I.2.

I.2: There is no point in doing unregulated of VOC monitoring where there is no possible occurrence.

II: There is no point in doing unregulated of VOC monitoring here there is no possible occurrence.

IV.: Prefer a combination of options IV.1 through IV.5.

+ All options should be implemented.
+ Option 5 seems very logical and appropriate for small systems. It will allow them time to plan for Phase V sampling.
+ Option 2 is given 2 points **assuming** monitoring for the unregulated VOCs and SOCs could be **postponed** until the second compliance period, rather than completely eliminated.
+ Option 4 could be granted for systems less than 3,300 as a suggestion.

V.: If congress and EPA feel the need for the data, then congress should fund the EPA to do the monitoring.

Region IX:

Options I.1,2: Neither of these choices seem to address all issues (EPA R-10).

Option II.2: States should be required to submit a waiver program that must be approved by the state(?). This would increase standardization (Nevada).

Option III.1: Must have some sort of periodic review process (Nevada).

Option V.5: This is not an acceptable option. Unregulated contaminant monitoring should be there to provide the information about those contaminants so that they can be considered further (Arizona).

Region X (all comments from EPA R-10)

Option I.1: Subject to EPA review, and explicit approval.

Option I.2: Negative data is also useful.

Option IV.1: This creates a biased database. The value of the unregulated contaminant

monitoring would be compromised.

Option V.2: States would need more federal funding. Existing state resources may be unacceptably burdened.

Option V.3: A congressional Education program may be of use in obtaining funds for EPA to conduct this research.

Option V.5: Identification of an alternative source of information is needed before the requirement is removed. Since EPA will be choosing future contaminants for regulations occurrence data is critical.

OGWDW, TSD:

Option IV.2,3: If we must continue the unregulated contaminant monitoring program, reduce the list and **do not** raise the detection limits.

Option V.5: It is clear we need the occurrence information, but that unreg. monitoring currently does not and will likely never meet our needs. Therefore eliminate the requirement and fund and conduct targeted surveys through EPA.

WAIVER GUIDANCE
& TECHNICAL TRANSFER

WAIVER GUIDANCE
& TECHNICAL TRANSFER

ISSUE: *States need additional information regarding their options for designing sampling waiver programs.*

OPTION 1: Status quo - the national guidance signed and distributed to the Regional Offices on September 11, 1992, along with the Region V Guidance that was attached to it, are sufficient.

OPTION 2: To the national guidance cited above, add general clarifications for State waiver program strategies to the Consolidated Rule Summary, which is near completion, and provide additional clarifications through a Q&A document based on specific State and Regional Office questions.

OPTION 3: Prepare written abstracts of approved waiver program descriptions and distribute these to all States and Regional Offices with complete copies of each approved program. An initial batch of approved programs should be available in the first quarter of 1993.

OPTION 4: Conduct technical transfer workshops during the first six months of 1993. These will include panel discussions of alternative state waiver strategies and State Wellhead Protection Programs, and may include panel discussions of Comprehensive State Ground Water Protection Programs (CSGWPPs) or State Watershed Management Programs. The scope of each workshop will depend on the interests and capacity of the host State or Region.

OPTION 5: Combine Options 2,3 and 4.

Summary of Responses

None of the options under this issue were mutually exclusive (except for the status quo). The greatest amount of "negative" tallies was received for Option 1, the status quo option. Both Option 3 and Option 5 received twice as many tallies as the other three options.

Very few comments were received. There was indication that this type of technical transfer or guidance would have been much more helpful at the time Phase II was promulgated.

J

APPENDIX J

Phase I/II/V Implementation Workgroup

Issues Outside the Scope of the Workgroup

March, 1993

PREFACE

Along with the Phase I/II/V issues that were submitted by the Workgroup's constituents (see Appendix E), over sixty additional issues that pertained to other regulations were also submitted. The Workgroup determined these issues to be outside of its scope and charge. It is the Workgroup's hope that these issues will be referred to the approriate individuals within the Office of Ground Water and Drinking Water.

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
DISINFECTION/DISINFECTION BY-PRODUCTS RULE	
States must be given the flexibility to waive the requirement for mandatory disinfection based on such factors as source protection, bacteriological compliance, and the absence of any confirmed waterborne disease outbreaks. No public health benefits will be gained by mandating disinfection treatment for systems that historically have had no evidence of bacteriological contamination. In fact, arbitrarily mandating disinfection may serve to create a public health concern (disinfection byproducts) in many cases. In addition, please note the disinfection can adversely affect water stability which may lead to increased noncompliance under the Lead/Copper Rule and make it more difficult (and costly) to provide optimum corrosion control treatment.	North Dakota
A reasonable balance between mandatory disinfection and the regulation of disinfection byproducts must be achieved. Compliance levels for disinfection byproducts cannot be set so low that systems which must practice disinfection treatment cannot remain in compliance with the disinfection byproducts requirements without additional costly treatment. Public Health officials must not be put in the position of having to compromise effective disinfection (if disinfection is warranted) at the expense of disinfection byproducts which represent such a low health risk.	North Dakota
ENFORCEMENT	
Enforcement should rest solely with the primacy agency.	North Dakota
The enforcement role of the EPA should be limited solely to providing funding, technical, and legal assistance to achieve state objectives.	North Dakota
The EPA should take enforcement actions only as specified under the formal State/EPA Enforcement Agreement.	North Dakota
Enforcement actions taken directly by the EPA should be done to strengthen, and not weaken, state programs.	North Dakota
EPA must recognize that not all violations warrant *formal* action and recognize the many *informal* actions taken by states.	North Dakota

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
FEDERAL-STATE TOXICOLOGY AND RISK ANLYSIS COMMITTEE (FSTRAC) REPORT	
The current February 1990 Summary of State and Federal Drinking Water Standards and Guidelines contains outdated information on the Federal National Primary Drinking Water Regulations (NPDWR).	Safe Drinking Water (SDW) Hotline
FLUORIDE RULE	
Delete portrayal of 5.0 milligrams per liter fluoride as an unreasonable risk to health.	North Dakota
Delete the public notice requirements for exceedances through an EPA-developed public education program.	North Dakota
HEALTH ADVISORIES	
The April 1992 Drinking Water Regulations and Health Advisories table shows that methyl ethyl ketone has a reference dose (RfD) of 0.00005 mg/kg/day. According to the March 31, 1987 Health Advisory document for methyl ethyl ketone, the RfD should be **0.0247 mg/kg/day**.	SDW Hotline
The April 1992 Drinking Water Regulations and Health Advisories table contains several errors. • The status of the copper standard is **final**, not proposed as of June 7, 1991. • The reference dose for 2,3,7,8-TCDD (Dioxin) should be **$1x10^{-09}$ mg/kg/day** instead of $1x10^{-6}$ mg/kg/day, according to the drinking water health advisory for Dioxin (March 31, 1987). • m-Dichlorobenzene does not have a final standard of any kind. It is on the Drinking Water Priority List. • 1,2,4-Trichlorobenzene is shown as having a proposed MCL of 0.07 mg/l. The proposed MCL is actually **0.009 mg/l** (55 *FR 30371*). A notice of availability released on November 29, 1991 (56 *FR 60949*) stated that "is considering changing" the MCL for the final rule. The notice did not amend the proposed rule.	SDW Hotline
The lifetime health advisory value for cyanazine listed in the summary table Drinking Water Regulations and Health Advisories (April 1992) differs from the actual Health Advisory Document (August 1988). The lifetime health advisory value in the summary table is **0.001** mg/l, but in the Health Advisory Document the value is **0.01** mg/l.	SDW Hotline

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
LEAD AND COPPER RULE	
It is paramount that the EPA prepare additional guidance for states and PWSs on the designation and optimization of corrosion control treatment.	North Dakota
For small systems, states must be permitted the discretion to designate a corrosion control method (and an acceptable range of water quality parameters) rather than evaluate a prescribed number of control methods.	North Dakota
Systems, particularly small systems, that exceed the lead and/or copper action levels that already practice treatment designed to minimize corrosion (i.e., recarbonation/acid stabilization following lime softening, phosphate addition) should be permitted time to optimize such processes prior to performing complex and costly corrosion control studies involving other treatment methodologies.	North Dakota
Water quality parameter monitoring should not be required until the first compliance period after the lead and/or copper action levels are exceeded (please note that the lead and copper monitoring results do not have to be reported until ten days after the end of the compliance period).	North Dakota
States should be given the discretion to utilize corrosion control indexes rather than individual water quality parameter results to evaluate the effectiveness of corrosion control treatment.	North Dakota
Regulation: The final rule provides, as stated in the preamble, that "in cases where a system chooses to have customers perform sampling, the results shall be accepted by the systems as valid and may not be challenged in any subsequent administrative or civil enforcement proceeding or citizen suit on the grounds that errors were committed by the customer during sampling." This should be changed in the technical corrections to allow samples that are obviously in error or caused by circumstances such as those discussed below to be challenged. The samples could either be replaced by the results of a follow-up sample or a substitute site (if the cause was of the type discussed below).	Association of Metropolitan Water Agencies (AMWA)

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
Guidance: In addition, clarification is needed in the Guidance Manual so that samples taken by customers which should be disqualified can be disqualified. Several examples of such samples have surfaced as large systems have started their initial monitoring. Despite notifying customers that they could only participate in sampling if they did not have home treatment devices in their home system, one utility, when investigating the reason for a reading of 174 ppb, found a reverse osmosis system installed prior to the tap. In several other cases with readings in the 60 to 70 ppb range, the cause was determined to be water softeners. At another utility, a 150 ppb result was traced to a wood stove heater that heated the kitchen faucet too hot to touch. This utility presently adjusts pH, feeds zinc orthophosphate, and has an average lead level of 6.3 ppb and a 90th percentile of 13 ppb. At a third utility, a reading of 88 ppb was attributed to the fact that the residence was owner-built and extremely poor solder joints are suspected. This system has average and 90th percentile readings both less than 5 ppb. Lastly, a system that has practiced lime softening for almost 90 years tested 109 lead service line sites and found lead levels with a mean of 2.1 ppb, a meadian of 1.4 ppb and a 90th percentile of 5.1 ppb. In one residence, a reading of 20.8 ppb was attributed to an unused second floor lead plumbing run attached to a riser at the kitchen sink. These types of samples should be subject to disqualification since the readings will have no bearing on determining the effectiveness of corrosion control efforts. Since large systems must undertake corrosion control efforts regardless of initial sampling levels, follow-up samples with high levels caused by these types of problems, if not disqualified, could trigger extremely expensive and unwarranted lead service line replacement.	AMWA
Regulation: Recently, in conjunction with discussions of new faucet lead levels and the Section 9, NSF 61 Standard, the agency has stated that there is nothing in the rule that requires systems to test residences where there are new faucets. There is nothing in the rule, however, which would allow a system to disqualify a second round sample if a new faucet were installed between the first and second sample. Since Standard 61 was developed to establish minimum requirements for the control of potential adverse human health effects from products contacting drinking water, should EPA endorse an NSF standard which would allow first draw tap sample lead levels in excess of 15 ppb? EPA should allow water suppliers to disqualify all samples from new faucets. This needs to be specifically stated in the technical corrections to the rule. According to the preamble to the final rule the main reason for taking first draw tap samples is to allow evaluation of the effectiveness of corrosion control. Testing involving new faucets will only complicate that evaluation because of high initial leaching levels.	AMWA

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
Regulation: The copper PQL and laboratory acceptance limit for certification have been established at 0.050 milligrams per liter (mg/l) while the Maximum Contaminant Level Goal is 1/3 mg/l. The laboratory acceptance limit could be set at a much higher level without effecting the rule and allow the use of alternative, perhaps less expensive, analytical methods. AMWA supports efforts to address this area in technical revisions to the rule.	AMWA
Regulation: The rule requires in Section 141.86(a)(9) that systems with lead service lines (LSLs) which cannot identify 50 percent of their sampling pool from LSL sites must take samples at all LSL sites they do find. This requirement may not be possible to meet if utilities are unable to gain access to the sites. This is a real possibility since the rule is based on voluntary homeowner participation. While Volume 1 of the Guidance Manual discusses this situation, the wording of the rule is not flexible and should be changed.	AMWA
Guidance: Volume 1 of the Guidance Manual contains a form on page A-102 (Form 141-A) that should be corrected to agree with the regulation. This form requires a certification that each first draw tap sample for lead and copper has stood motionless in the plumbing system for at least 6 hours, while the rule only requires that this be certified "to the best of their knowledge." (Section 141.90(a)). The form goes on to require three other certifications not required by the rule and require submittal of a copy of test method material distributed to residents and a list of all residents who performed the sampling, neither of which is required by the rule under Section 141.90 Reporting Requirements. The guidance also requires certification that the system does not challenge the "accuracy" of resident-taken samples. This certification is not required by the rule and is quite a bit broader than the rule statement that such samples cannot be challenged based on errors by the resident in sampling (a requirement which should itself by changed as discussed above). Guidance should not be used to expand reporting and certification requirements specifically stated in the rule.	AMWA
In the July 1, 1991 *CFR*, §141.86(d)(1), pertaining to the tap water monitoring requirements for lead and copper, lists out the first six-month monitoring period in which various-sized systems must begin monitoring. The table lists out the size breakdown as >50,000 persons, 3,301 to 50,000 persons, and 3,300 persons. The table omitted a **less-than or equal-to symbol** (≤) before the 3,300 persons.	SDW Hotline
In §141.80(a)(2) of the July 1, 1991 *Code of Federal Regulations*, the effective date for §§141.86-141.91 was left out.	SDW Hotline

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
LEAD CONTAMINATION CONTROL ACT	
The Lead Contamination Control Act of 1988 should be amended to eliminate all duplication and conflicts with the Lead-Copper Rule.	North Dakota
PRIMACY	
EPA and the states should be permitted to negotiate basic program requirements to best address public health concerns in that state based on such factors as the availability of resources/funding, existing data, and screening studies.	North Dakota
EPA should be permitted to disapprove/withdraw state primacy only if such action will not result in a decreased level of public health protection.	North Dakota
PUBLIC NOTIFICATION (PN) RULE	
The PN requirements are overly complex, unworkable, and ineffective. Consumers have developed a tendency to ignore notices, even notices pertaining to serious violations, because PWSs are presently required to provide notice for all violations, no matter how minor.	North Dakota
The PN requirements should be streamlined by: a. Deleting the PN requirements for all but MCL and acute MCL violations. b. Allowing states the discretion to determine the manner and frequency of notice for monitoring and treatment technique violations, and when variances or exemptions are issued. c. Allowing state discretion on follow-up and repeat notices.	North Dakota
The FRDS reporting requirements for PN violations need to be clarified. PN compliance (and reporting) should be based solely on whether the initial notification was completed. The FRDS system, at this time, is totally incompatible with the proper tracking and reporting of PN compliance.	North Dakota
State discretion should be permitted on the most effective manner of notification for small system acute violations (i.e., hand-delivery, direct mailing, or posting versus electronic media notifications).	North Dakota
EPA must better recognize that proper PN is the responsibility of PWSs, not state primacy programs.	North Dakota

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
RADIONUCLIDE RULE	
Public health will be far better served by establishing a more comprehensive approach to regulation of radon considering all exposure pathways. Regulating radon in drinking water at 300 picocuries per liter will accomplish little to reduce public exposure. The Phase III rule, as proposed, will result in considerable expenditure of funds to remove radon without measurable public health benefit.	North Dakota
SAFE DRINKING WATER ACT (SDWA) REAUTHORIZATION	
EPA should be required to regulate only contaminants that: are known or reasonably expected to occur in drinking water in concentrations that create a health risk; present health risks comparable to other environmental pathways; can be cost-effectively reduced considering multiple exposure pathways.	North Dakota
Congress should authorize the removal of any of the list of 83 contaminants which do not meet the criteria listed under item 1 and eliminate the requirement for triennial promulgation of 25 new contaminants.	North Dakota
A public water system (PWS) fee structure should be established to cover all reasonable state administration costs associated with the SDWA.	North Dakota
New rule promulgation should be conditioned on states receiving adequate EPA funds for implementation.	North Dakota
Community PWSs should be required to conduct a viability analysis.	North Dakota
A loan/grant fund should be established for small PWSs, with incentives for the restructuring of nonviable systems.	North Dakota
EPA should be required to prepare summaries, compliance flow charts, implementation guidance, data reporting requirements, and analytical methods/techniques at the time that new regulations are proposed and/or promulgated.	North Dakota
EPA should be required to consider PWS size in determining the feasibility of best available treatment technologies and/or treatment techniques.	North Dakota
EPA should be required to incorporate existing versus new treatment techniques whenever appropriate, and limit treatment technique requirements to specific treatment processes and unit operations.	North Dakota
Renewable exemptions for all PWSs should be authorized.	North Dakota

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
The requirement for ongoing primacy agency certification on the Lead Ban (SDWA 1417) should be deleted.	North Dakota
SURFACE WATER TREATMENT RULE (SWTR)	
To avoid/minimize compliance conflicts with the Lead/Copper and pending Phase IV Rules, states should be given the flexibility to: a. Reduce disinfection contact time (CT) requirements for systems that filter and disinfect, have an acceptable bacteriological compliance record, and that have had no confirmed waterborne disease outbreaks. b. Waive mandatory disinfection requirements for groundwater systems based on source protection considerations, bacteriological compliance, and the absence of any confirmed waterborne disease outbreaks.	North Dakota
The regulatory timeframe for determining which groundwater systems may be under the direct influence of surface water should be postponed until: a. A consensus protocol has been developed by the EPA. b. A consensus can be achieved on the interpretation of particulate analysis results.	North Dakota
Public notification should not be required for violations of the treatment technique requirements (for filtration and/or disinfection) unless the overall treatment performance requirements are not being met (e.g., due to significant disinfection contact time, a system that filters may still meet the overall performance requirements even if less than 95 percent of the monthly turbidity measurements were less than or equal to 0.5 NTU).	North Dakota
The criteria to avoid filtration for groundwater systems must be simplified. The criteria as promulgated are excessively stringent, unworkable, and beyond the implementation capabilities of states and PWSs. Application of the criteria as promulgated will result in the questionable expenditure of funds for disinfection and filtration treatment (and possibly treatment for the removal of disinfection byproducts) for groundwater systems that have had no bacteriological compliance problems or confirmed waterborne disease outbreaks.	North Dakota
The monitoring requirements for distribution system HPC (in lieu of disinfectant residual measurement) should be totally optional.	North Dakota

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
Clarification is needed on whether continuous monitoring also mandates continuous recording capability (i.e., strip chart, etc.).	North Dakota
For systems using conventional treatment, states should be given the flexibility to automatically increase the turbidity limit to 1 NTU based on such factors as bacteriological compliance, the absence of any confirmed waterborne disease outbreaks, and the continuous use of coagulation chemicals.	North Dakota
EPA must accelerate the ongoing research on the inactivation credit that may be given PWSs that practice such treatment as lime softening.	North Dakota
A determination as to whether those PWSs that utilize roof catchment as their drinking water source needs to be made. To consider a roof catchment as a surface water source is unduly penalizing these PWSs, requiring a substantial increase in monitoring.	Virgin Islands
In 40 *CFR* §141.13, the maximum contaminant levels for turbidity, the Effective Date Note lists that this section was amended at 54 *FR 27527*, June 29, **1988**. This is the citation for the Surface Water Treatment Rule. This rule was published in the *Federal Register* on June 29, **1989**.	SDW Hotline
TOTAL COLIFORM RULE	
Nevada has many isolated water systems. Laboratories with capabilities beyond coliform bacteria are located in Reno or Las Vegas. There has been some difficulties with maintaining a cool temperature, especially during the summer, and having the samples reach a lab in a timely manner. Some communities or areas do not have regular overnight service from any source (Fed X, etc.) unless the water system operator/owner travels to a town. This could result in trips of 4 hours or more each way. Even then, if samples do not reach the shipping offices by a certain time, 'overnight' could mean a 'couple of nights' and by this time, the samples will be warm and invalid. Because of the logistics of having a sample reach a lab within the timeframe allocated, costs escalate. The analysis of the samples alone is very costly to small systems. When the cost of time, transportation, and shipping are added, it becomes a major expense.	Nevada
States must be permitted additional discretion in determining appropriate repeat monitoring requirements once an MCL has been exceeded.	North Dakota
The EPA must decide how seasonal noncommunity PWS compliance should be assessed (based on consecutive quarters or months that water is provided to the public, or merely consecutive calendar quarters or months).	North Dakota

ISSUES OUTSIDE THE SCOPE OF THE WORKGROUP	
ISSUE	**SOURCE**
States must be permitted discretion to consider violations of the *next* month's monitoring requirements as either a minor or major monitoring violation (whichever is appropriate) versus extending the *next* month's monitoring requirements to subsequent months.	North Dakota
For the following reasons, both acute and monthly maximum contaminant level (MCL) violations should not be reported to FRDS as separate violations for PWSs that collect fewer than 40 samples per month: such systems cannot have an acute MCL violation without also having a monthly MCL violation; reporting such violations as separate violations will inappropriately accelerate such PWSs to significant noncomplier status.	North Dakota
The variance and exemption criteria from the MCL for total coliforms should be simplified. As promulgated, such criteria are excessively stringent, unrealistic, unachievable, and beyond the resource capabilities of PWSs and states.	North Dakota
The EPA must reconsider its present policy of requiring bacteriological results between 30 and 48 hours old to be reported as questionable, to better recognize states where size and laboratory availability preclude receipt and testing of all samples within 30 hours.	North Dakota

K

APPENDIX

K

PREFACE

Forty-four of the original 187 issues were designated by the Workgroup as "technical fixes" to the regulations. For the most part, these were errors, omissions, and inconsistencies in the regulations, as published. In response, nonsubstantive corrections have been prepared for the following affected regulations: Phase I (7/8/87), Phase IIA (1/30/91), Phase IIB (7/1/91), and Phase V (7/17/92). Clarification of certain sections in 40 CFR Part 141, as published in the Federal Register, will eliminate some of the confusion caused by the errors, omissions, and inconsistencies. The final rule corrections are currently being reviewed by OGWDW's Regulation Management Branch, with an early publication date anticipated. These corrections will address the 44 issues brought forth and identified as nonsubstantive and easily fixable.

APPENDIX K

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APPENDIX K

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141 and 142

National Primary Drinking Water
Regulations; Synthetic Organic
Chemicals; Monitoring for
Unregulated Contaminants

AGENCY: Environmental Protection Agency (EPA)

ACTION: Final rule; correction.

SUMMARY: In this notice, EPA is correcting an error in the final rule promulgated July 8, 1987 (52 FR 25690).

FOR FURTHER INFORMATION CONTACT:

_____, _____ Division, Office of Ground Water and Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, (202)_____.

EFFECTIVE DATE: The section of the regulation affected by this correction was effective January 1, 1988.

SUPPLEMENTARY INFORMATION: EPA promulgated National Primary Drinking Water Regulations (NPDWRs) for certain volatile synthetic organic chemicals (VOCs), specifically trichloroethylene, carbon tetrachloride, 1,1,1-trichloroethane, vinyl chloride, 1,2-dichloroethane, benzene, 1,1-dichloroethylene, and para-dichlorobenzene on July 8, 1987 (52 FR 25690). This notice amends the rule to incorporate a change which has resulted from more recent action.

Correction to the Regulation

This notice amends the regulatory language.

This notice makes a correction to §141.40(j), as "1,2,4-Trichlorobenzene" is now regulated.

PARTS 141 and 142 - [AMENDED]

§141.40 [Amended]

1. In 141.40(j), on page 25715, remove "1,2,4-Trichlorobenzene" and renumber the compounds.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141, 142, and 143

National Primary Drinking Water Regulations - Synthetic Organic Chemicals and Inorganic Chemicals; Monitoring for Unregulated Contaminants; National Primary Drinking Water Regulations Implementation; National Secondary Drinking Water Regulations

AGENCY: U.S. Environmental Protection Agency (EPA)

ACTION: Final rule; corrections.

SUMMARY: In this notice, EPA is correcting errors in the final rule promulgated January 30, 1991 (56 FR 3526).

FOR FURTHER INFORMATION CONTACT:

_____, _____ Division, Office of Ground Water and Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, (202)_____.

EFFECTIVE DATE: The sections of the regulation affected by these corrections were effective July 30, 1992.

SUPPLEMENTARY INFORMATION: EPA promulgated maximum contaminant level goals and National Primary Drinking Water Regulations for 26 synthetic organic chemicals and 7 inorganic chemicals on January 30, 1991 (56 FR 3526). The regulation contained errors which are corrected by this notice.

Corrections to the Regulation

This notice corrects errors in the regulatory language. The corrections are described below.

§§141.23(d), (d)(4), (e) and (e)(3) and §141.62(b) on pages 3580, 3581, and 3594, respectively, establish monitoring frequencies for transient non-community water systems (TWSs) for nitrate and nitrite. A definition for transient non-community water system was not included in the promulgation of the final rule. This notice amends §141.2 to include a definition of a transient non-community water system.

This notice changes a paragraph in §§141.23, 141.24, and 141.40 and is intended to clarify sampling requirements for systems utilizing multiple water sources, but which are unable to utilize them in a simultaneous situation.

This notice corrects a typographical error in §141.23(c)(5)(iii) and clarifies a statement in §141.23(i)(2).

PARTS 141, 142, and 143 - [AMENDED]

§141.2 [Amended]

1. §141.2 is amended by adding in alphabetical order, a definition for "Transient non-community water system" to read as follows:

> "Transient non-community water system" or "TWS" means a non-community water system that primarily provides service to transients.

§141.23 [Amended]

2. In §141.23(a)(3), on page 3579, column 3, line 13, after the word "conditions", remove "(i.e., when water is representative of all sources being used)" and replace with "and shall keep a record of and report the sources providing water for each sample. When a sample does not contain water from all sources which serve the sampling point, a schedule prepared by the system shall be followed so that the next sample at this point for the same chemicals will include water from sources not included in the previous sample or samples. Successive samples from the same sampling point for the same chemicals will sample water supplied from different sources until all the sources supplying that sampling point have been monitored."

3. In §141.23(c)(5)(iii), on page 3580, column 2, line 64, change "prcoedures" to "procedures".

4. In §141.23(i)(2), on page 3581, column 3, line 14, change "and" to "or".

§141.24 [Amended]

5. In §141.24(h)(3), on page 3585, column 3, line 1, after the word "conditions", remove "(i.e., when water is representative of all sources being used)" and replace with "and shall keep a record of and report the sources providing water for each sample. When a sample does not contain water from all sources which serve the sampling point, a schedule prepared by the system shall be followed so that the next sample at this point for the same chemicals will include water from sources not included in the previous sample or samples. Successive samples from the same sampling point for the same chemicals will sample water supplied from different sources until all the sources supplying that sampling point have been monitored."

§141.40 [Amended]

6. In §141.40(n)(7), on page 3592, column 2, line 4, after word "conditions", remove "(i.e., when water is representative of all sources being used)" and replace with "and shall keep a record of and report the sources providing water for each sample. When a sample does not contain water from all sources which serve the sampling point, a schedule prepared by the system shall be followed so that the next sample at this point for the same chemicals will include water from sources not included in the previous sample or samples. Successive samples from the same sampling point for the same chemicals will sample water supplied from different sources until all the sources supplying that sampling point have been monitored."

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 141, 142 and 143

Drinking Water; National Primary Drinking Water Regulations; Monitoring for Volatile Organic Chemicals; MCLGs and MCLs for Aldicarb, Aldicarb Sulfoxide, Aldicarb Sulfone, Pentachlorophenol, and Barium

AGENCY: Environmental Protection Agency (EPA)

ACTION: Final rule; corrections.

SUMMARY: In this notice, EPA is correcting errors in the final rule promulgated July 1, 1991 (56 FR 30266).

FOR FURTHER INFORMATION CONTACT:

_____, _____ Division, Office of Ground Water and Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, (202)_____.

EFFECTIVE DATE: Section 141.6, affected by these corrections, was effective July 1, 1991, and section 141.24 was effective July 30, 1992.

SUPPLEMENTARY INFORMATION: EPA promulgated national primary drinking water regulations for the monitoring of volatile organic chemicals and establishing MCLGs and MCLs for aldicarb, aldicarb sulfoxide, aldicarb sulfone, pentachlorophenol, and barium on July 1, 1991 (56 FR 30266). The regulation contained errors which are corrected by this notice.

Corrections to the Regulation

This notice corrects errors in the regulatory language. These corrections are described below.

This notice adds a phrase to §141.6 to recognize the effective dates of the lead/copper rule.

This notice changes a paragraph in §141.24 and is intended to clarify sampling requirements for systems utilizing multiple water sources, but which are unable to utilize them in a simultaneous situation.

This notice corrects §141.24(f)(7) by inserting the term "non-community" which was mistakenly omitted after the term "non-transient".

This notice corrects §141.24(f)(14)(iii) by replacing the "$\geq$" before the number 3,300 with the "$\leq$" symbol. This was the original intent of the section as established in the final rule (56 FR 3526, January 30, 1991) and printed on page 3584.

PARTS 141, 142, and 143 - [AMENDED]

§141.6 [Amended]

1. In §141.6(a), on page 30274, column 2, line 28, after the word "section", add "or in paragraph (a)(2) of section 141.80".

§141.24 [Amended]

2. In §141.24(f)(3), on page 30277, column 2, line 21, after the word "conditions", remove "(i.e., when water representative of all sources is being used)" and replace with "and shall keep a record of and report the sources providing water for each sample. When a sample does not contain water from all sources which serve the sampling point, a schedule prepared by the system shall be followed so that the next sample at this point for the same chemicals will include water from sources not included in the previous sample or samples. Successive samples from the same sampling point for the same chemicals will sample water supplied from different sources until all the sources supplying that sampling point have been monitored."

3. In §141.24(f)(7), on page 30277, column 2, lines 49 and 50, after "non-transient", insert "non-community".

4. In §141.24(f)(14)(iii), on page 30278, column 2, lines 30 and 31, before the number 3,300, replace the "$\geq$" symbol with the "$\leq$" symbol.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 141 and 142

Drinking Water; National Primary
Drinking Water Regulations -
Synthetic Organic Chemicals and
Inorganic Chemicals; National Primary
Drinking Water Regulations
Implementation

AGENCY: U.S. Environmental Protection Agency (EPA)

ACTION: Final rule; corrections.

SUMMARY: In this notice, EPA is correcting errors in the final rule promulgated July 17, 1992 (57 FR 31776).

FOR FURTHER INFORMATION CONTACT:

_____, _____ Division, Office of Ground Water and Drinking Water (WH-550), U.S. Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, (202)_____.

EFFECTIVE DATE: The effective date for corrections to §§141.2, 141.23, and 141.24 was August 17, 1992. The effective date for §§141.32, 141.40, 141.50, 141.62, and 142.62 is January 17, 1994.

SUPPLEMENTARY INFORMATION: EPA promulgated national primary drinking water regulations which established maximum contaminant level goals and maximum contaminant levels for 18 synthetic organic chemicals and 5 inorganic chemicals and established monitoring, reporting, and public notification requirements for these chemicals on July 17, 1992 (57 FR 31776). The regulation contained errors which are corrected by this notice.

Correction to the Preamble

This notice corrects an error in the preamble. The correction is described below.

This notice corrects a typographical error in a subheading in Table 23.

Corrections to the Regulation

This notice corrects errors in the regulatory language. These corrections are described below.

This notice corrects the definition of "Initial compliance period" in §141.2 by inserting the "§" before 141.61 and 141.62 which was mistakenly omitted.

This notice corrects errors in §141.23(a)(1) and (2) by revising §141.23(a)(1) and (2) by replacing the starting dates with the term "initial compliance period".

This notice corrects a typographical error in §141.23(i)(1) by changing the term "our" to "out".

This notice corrects a typographical error in a table heading in §141.23(k)(4).

This notice corrects a typographical error in the title of §141.24.

This notice corrects omissions in §141.24 which describe follow-up procedures to be taken when composite samples exceed the one-fifth of the MCL action level and it also corrects a typographical error.

This notice adds a paragraph to §141.24 which establishes a repeat monitoring framework for systems which begin initial monitoring for organic chemicals after December 31, 1992.

This notice corrects an error in §141.24(h) by revising §141.24(h)(4) to include the intent of the definition of "Initial compliance period".

This notice corrects an omission in §141.24(h)(12) to add the citation to the July 1990 methods manual, which contains the methods promulgated new with Phase V-Methods 547, 548, 549, 550 and 550.1.

This notice corrects §141.32(e)(62) by replacing the number "0.004" with the correct value "0.006", the maximum contaminant level as established by §141.61(c).

This notice corrects an omission in the title of §141.40 to include monitoring for an inorganic chemical as indicated by §141.40(n)(12).

This notice changes the titles of §§141.40 and 141.50 to make them consistent with the contents of §§141.40 and 141.50 and the titles of §§141.51 and 141.61.

This notice makes corrections to §141.40(e) as "Chlorobenzene" is currently regulated as "Monochlorobenzene", "Dibromomethane" was mistakenly omitted and the list is incomplete.

This notice makes corrections and updates to paragraph (g) of §141.40.

This notice corrects a typographical error in the "List of Unregulated Organic Contaminants:" in §141.40(n)(11).

This notice corrects a typographical error in the "Key to BATS in Table" for table entitled "BAT for Inorganic Compounds Listed in Section 141.62(B)" in §141.62(c).

This notice corrects typographical errors in the table headings identifying best available technologies for achieving compliance with the maximum contaminant levels for organic chemicals. Packed Tower Aeration was incorrectly abbreviated as "PAT" and Granular Activated Carbon was incorrectly abbreviated as "GAO" in §142.62(a).

PARTS 141 and 142 - [AMENDED]

1. On page 31832 remove "($ Millions)" following the term "Benefits" from the subheading of Table 23.

§141.2 [Amended]

2. In §141.2, on page 31838, column 1, line 35, before "141.61" insert "§" and on page 31838, column 1, line 36, before "141.62" insert "§".

§141.23 [Amended]

3. After "(a)***", on page 31838, add the following paragraphs.

"(1) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point) beginning in the initial compliance period. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant."

"(2) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point) beginning in the initial compliance period. The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant."

"Note: For purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources."

4. In §141.23(i)(1), on page 31839, column 3, line 29, change "our" to "out".

5. In the table heading in §141.23(k)(4), on page 31839, change "Methodogy" to "Methodology".

§141.24 [Amended]

6. In the title to §141.24, on page 31841, change "trialomethanes" to "trihalomethanes".

7. In §141.24(f)(4), on page 31841, column 1, line 34, change "21" to "(21)".

8. After §141.24(f)(5), on page 31841, add the following paragraph.

"(i) If the initial monitoring listed in §141.24(f)(4) is completed after December 31, 1992, and the system did not detect any contaminant listed in §141.61(a)(2) through (21), then each ground and surface water system shall take one sample annually for the remainder of the compliance period."

9. After §141.24(f)(14), on page 31841, add the following paragraph.

"(i) If the concentration in the composite sample is greater than or equal to one-fifth of the MCL of any organic chemical, then a follow-up sample must be taken within 14 days at each sampling point included in the composite. These samples must be analyzed for the contaminant which exceeded one-fifth of the MCL in the composite sample."

10. After "(h)***" in §141.24(h), on page 31842, insert the following.

"(4) Monitoring frequency:

(i) Each community and non-transient non-community water system shall take four consecutive quarterly samples for each contaminant listed in §141.61(c) during each compliance period beginning with the initial compliance period."

11. After §141.24(h)(10), on page 31842, add the following paragraph.

"(i) If the concentration in the composite sample is greater than or equal to one-fifth of the MCL of any organic chemical, then a follow-up sample must be taken within 14 days at each sampling point included in the composite. These samples must be analyzed for the contaminant which exceeded one-fifth of the MCL in the composite sample."

12. After §141.24(h)(10)(i), on page 31842, add the following paragraph.

"(12) Analysis for the contaminants listed in §141.61(c) and for endrin in §141.12(a) shall be conducted using the following EPA methods or their equivalent as approved by EPA. These methods are contained in "Methods for the Determination of Organic Compounds in Drinking Water," EPA/600/4-88/039, December 1988, Revised, July 1991 and in "Methods for the Determination of Organic Compounds in Drinking Water - Supplement I," EPA/600/4-90/020, July 1990, Environmental Monitoring Systems Laboratory, Cincinnati, OH 45268. These documents are available from the National Technical Information Service (NTIS) NTIS PB91-231480, PB91-146027 and PB92-207703, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The NTIS toll-free number is 1-800-553-6847."

§141.32 [Amended]

13. In §141.32(e)(62), on page 31844, column 1, line 37, before the word "parts" replace the number "0.004" with the number "0.006."

§141.40 [Amended]

14. In the title of §141.40, on page 31845, column 3, line 8, insert the words "inorganic and" before "organic".

15. In the title of §141.40, on page 31845, change "chemicals" to "contaminants".

16. In §141.40(e), on page 31845, remove "Chlorobenzene", insert "Dibromomethane" between "Bromoform" and "m-Dichlorobenzene", add "Aldicarb", "Aldicarb Sulfoxide", "Aldicarb Sulfone", "Aldrin", "Butachlor", "Carbaryl", "Dicamba", "Dieldrin", "3-Hydroxycarbofuran", "Methomyl", "Metochlor", "Metribuzin", and "Propachlor" in order after "1,3-Dichloropropene", and renumber the contaminants.

17. In §141.40(g), on page 31845, column 3, replace paragraph "(g)" with the following:

"(g) Analysis for the organic contaminants in this section shall be conducted using the recommended EPA methods, or their equivalent as determined by the EPA, as described in the EPA's "Methods for the Determination of Organic Compounds in Drinking Water", revised July 1991 and available with designation PB91-231480 from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The NTIS toll-free number is 1-800-553-6847."

18. In §141.40(n)(11), on page 31846, change the EPA analytical method for 3-Hydroxycarbofuran from "581.1" to "531.1".

§141.50 [Amended]

19. In the title of §141.50, on page 31846, change "chemicals" to "contaminants".

§141.62 [Amended]

20. In §141.62(c), on page 31847, column 2, line 51, change "Ultraviolent" to "Ultraviolet".

§141.62 [Amended]

21. In the table subheading in §142.62(a), on page 31848, change "PAT" to "PTA".

22. In the table subheading in §142.62(a), on page 31848, change "GAO" to "GAC".

APPENDIX L

Phase I/II/V Implementation Workgroup

Issues Requiring Guidance or Clarification

March, 1993

PREFACE

The issues in this appendix were submitted by the Workgroup's constituents. This table is a subset of Appendix E and contains those issues that were inappropriate for the Workgroup to factor into its regulatory recommendations. In most cases, the issues pertained to guidance or clarification of current regulations. These issues are being referred to the Office of Ground Water and Drinking Water. It is the Workgroup's hope that guidance, question-and-answer documents, or some form of "official" response shall be made by the appropriate OGWDW Division.

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
I.9	Concern about distribution sampling (for PAHs, VOCs) and application of MCLs. Distribution sampling should be left to State discretion, but states should have the authority to require monitoring and apply MCLs in the distribution system.	New York	*Much discussion--Need to clarify issue w/NY. 1) Do they mean it as written? 2) Add Phrase "Instead of entry point monitoring.." Vtd 2 HIGH Priority, 7 Med. Priority, 4 LOW Priority; REGULATORY LONG-TERM (per question #2); Vtd 3 MEDIUM Priority, 6 LOW Priority; GUIDANCE (per question #1)*	See option 3 in flexibility issue 2 of monitoring subgroup issues Guidance/ clarification required
I.15	Four consecutive quarterly samples for SOCs during the initial compliance period is an unnecessarily excessive requirement. For the regulated pesticides and the unregulated organic contaminants, states should be permitted (during the inital monitoring period) to grant waivers based on no detects for one or two consecutive quarters.	North Dakota	*Vtd 9 HIGH Priority; REGULATORY LONG-TERM and 2 HIGH Priority; GUIDANCE* *Substantial discussion and uncertainty as to where it belongs*	See Flexibility issue 4 in monitoring subgroup summary; monitoring proposal would give State flexibility on monitoring requirements Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
II.2	§141.23(b)(10) allows only the use of asbestos monitoring data collected after 01/01/90. Allow the use of asbestos monitoring data obtained prior to 1990, but consistent with Phase II regulations.	New York	*Vtd 4 HIGH Priority, 9 MEDIUM Priority; REGULATORY LONG-TERM* *Could be a tech. fix*	Unresolved
II.5	The regulations do not address asbestos requirements for consecutive systems. The responsibility of consecutive users for distribution system asbestos monitoring and corrective action should be clarified.	North Dakota	*Vtd 11 LOW Priority, GUIDANCE* *State guidance -- system-specific*	Guidance/ clarification required
IV.2	§141.24(h)(13) states that Method 508A is the method for quantitation of PCB's. This is a "screening" method which is prone to false positives, was designed as a pass/fail test, has serious laboratory safety concerns, and simply should not be the method for quantitation. The allowed quantitative procedures should be Methods 505 and 508.	Region II Env. Services Division	*Vtd 12 HIGH Priority; TECHNICAL FIX*	Unresolved - requires reg change
IV.6	There is concern about why the approved dioxin method (Method 1613) was chosen over other methods, as well as the national laboratory capacity to analyze the necessary number of samples. Clarify why Method 1613 was chosen over other methods such as high resolution MS and Superfund's Method 8280. Determine laboratory capacity.	Regional Quality Assurance Managers (RQAM)	*Explained in Phase V pre-amble*	Guidance/ clarification required
IV.10	The Phase II rule states (p. 3550) that labs not wishing to use diazomethane may use the original derivatization procedure. That procedure, however, if used to measure pentachlorophenol (PCP) by Method 525 without ion trap mass spectrometry, will be unable to detect at the MCL level. This issue needs to be resolved.	RQAM	*Vtd 1 HIGH Priority, 4 LOW Priority; GUIDANCE* *NATIONAL GUIDANCE*	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
IV.11	EPA currently has no good method for the analysis of hexavalent chromium (the more toxic chromium), although an ion chromatography method is the subject of a current ASTM/EPA method validation study. The Office of Water should re-institute hexavalent chromium as a drinking water analyte if an analytically sound method is found.	Regional Quality Assurance Managers	*Evaluation underway -- Proposed changes not. Is assigned to TSD.*	Guidance/ clarification required
IV.12	According to the "Phase I Draft April 1991 Fact Sheet," compositing of up to 5 samples is allowed for all analyses, including volatiles. However, no procedures are given in 524.2 for compositing. Clarify which methods EPA considers adequate for compositing.	Regional Quality Assurance Managers	*Solution exists -- Source of info needs to be distributed.*	Guidance/ clarification required
IV.14	Some of the sample preservation methods which are now used (e.g., for volatiles) are perceived to have problems and inadequacies. The current sample preservation methods need to be reevaluated as quickly as possible.	RQAM	As of 8/91, EMSL and/or TSD was evaluating preservatives. *Vtd 4 LOW Priority; OTHER. Working towards solution -- new info might modify status quo.*	Guidance/ clarification required
V.1	§141.23(k)(5) is not specific enough as it pertains to laboratories approved by EPA or the State. §141.23(k)(5) should also require that a laboratory must be shown to follow approved methods as specified in §141.23(k)(1), with adequate quality control and documentation, during periodic on-site evaluations. These on-site visits should be done yearly, or at least once every three years.	Region II Env. Services Division	*Vtd 5 HIGH Priority, 4 MEDIUM Priority; GUIDANCE*	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
V.3	Concerned about Cincinnati having adequate time to send out Performance Evaluation (PE) samples so that laboratories can be at least conditionally certified for Phase II/V analyses in time for the 1993 monitoring. Start immediately sending out the PE samples or allow an adequate on-site laboratory evaluation to count as provisional certification.	Region VII	*Vtd 14 HIGH Priority; OTHER.* *How can we make certain all work comes together in time to assure availability to the regulated community. This is a long-term regulatory issue.*	Guidance/ clarification required See Laboratory Capacity recommend.
V.4	It is difficult for state or commercial labs to justify the expense of acquiring and maintaining certification for the single analyte methods, especially since waivers will limit the number of analyses required. EPA could assist the states by designating a particular laboratory (commercial or state) as the regional facility for the analysis of samples using a particular method.	New Jersey	*Vtd 1 HIGH Priority, 9 MEDIUM Priority, 1 LOW Priority; OTHER*	Guidance/ clarification required
V.5	The lack of laboratory competition in certain parts of the country resulted in high costs for the first round of VOC analyses and there is no indication that these high costs will not be the same for the implementation of Phase II. Consideration to this special condition and a commitment by the EPA Regional Offices to help ease the economic burden would be greatly appreciated.	Virgin Islands	*Vtd 8 MEDIUM Priority, 6 LOW Priority; OTHER*	Guidance/ clarification required
V.6	Who performs certification for asbestos, radionuclides, dioxin, and other "specialty" analyses where the expertise does not exist within a (primacy) state or a region? Clarification should be made as to the possibility of national EPA certification and third-party certification. EPA should oversee third-party certification programs and determine acceptability with a minimum set of criteria.	Regional Quality Assurance Managers (RQAM)	*Vtd 12 HIGH Priority; OTHER.* *Existing guidance needs to be revisited. See also pgs. 3 and 4.*	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
V.7	What documentation is needed by a state to show laboratory capability for primacy?	RQAM	*Vtd 12 HIGH Priority, 3 MEDIUM Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.8	If not another state laboratory, who certifies the facility providing analysis work to the state -- EPA or the resident state?	RQAM	*Vtd 6 HIGH Priority, 7 MEDIUM Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.11	Data will be collected before states and EPA have learned the new methods and are ready to certify laboratories for new analytes. Develop criteria to be used in accepting data that has already been collected, including data covered under the grandfathering allowance.	RQAM	*See V.3.*	Guidance/ clarification required
V.12	In light of third-party certifiers and the potential for a national capability for specialty analysis like asbestos, dioxin, and radionuclides, there is concern about the role of the regional ESD laboratories. Determine what analytical capabilities should be maintained by the Regional ESD laboratories for the Drinking Water Program.	Regional Quality Assurance Managers	*Vtd 7 HIGH Priority, 6 MEDIUM Priority, 1 LOW Priority; OTHER.* *Related -- <u>but</u> expands to ESD.*	Guidance/ clarification required
V.14	VOC certification is dependent upon THM status. The Phase II rule still requires certification for THMs as a prerequisite for VOC certification. Clarify whether or not a laboratory automatically loses its VOC certification if it loses its THM certification.	Regional Quality Assurance Managers	*NO LONGER AN ISSUE. CORRECTED IN RULE.*	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
V.15	The Phase II rule states that certification is based on PE study performance. Clarify if this means that certification is no longer based, inpart, upon on-site evaluations, and if the rule undercuts the present lab certification program and the certification manual.	RQAM	*Vtd 11 MEDIUM Priority, 2 LOW Priority; GUIDANCE.*	Guidance/ clarification required
V.17	The Performance Evaluation study instructions do not include information necessary for the safe disposal of the PE ampules. This information should be provided, including the composition of the matrix liquid (solvent) and a maximum level for each analyte.	RQAM	*Vtd 3 HIGH Priority, 8 MEDIUM Priority, 4 LOW Priority; GUIDANCE.* *HQ Guidance*	Guidance/ clarification required
V.18	Analysis for the more exotic chemicals will be performed by a limited number of laboratories nationwide. Having a national listing of all certified labs that meets the needs of State programs has not yet been developed. The ASDWA database is "primitive" and of limited use. A well thought out database system (designed by state program managers) that is accurate, up-to-date, complete and easily accessible (electronic bulletin board?) would be very beneficial to all states.	Region VIII	*Vtd 15 HIGH Priority; OTHER.* *Tech. Transfer*	Guidance/ clarification required
IX.1	Page 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) states "VOC monitoring requirements were revised on **June 30, 1991.**" The correct date should be **July 1**, 1991, the date of promulgation for the Phase IIb Rule (56 FR 30266).	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required
IX.2	Page 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) states "Monitoring for Phase I VOC's will remain in effect until **December 31, 1993**, when Phase II becomes effective." According to the Phase IIb Rule (56 FR 30274), Phase II monitoring requirements become effective **July 30, 1992,** 40 CFR §141.6(g).	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
IX.3	Table 1 of the VOC Fact Sheet (EPA #570/9-91-026FS) incorrectly states that systems serving 3,300 to 10,000 people and systems serving <3,300 people must begin monitoring by **January 1, 1988**. According to 40 CFR §141.24(g)(4), Table 1 should state that systems serving 3,300-10,000 people must begin monitoring by **January 1, 1989,** and systems serving <3,300 people must begin monitoring by **January 1, 1991.**	Safe Drinking Water Hotline	*TECH. CORRECTIONS TO NATIONAL GUIDANCE.*	Guidance/ clarification required
IX.4	EPA's Unreasonable Risk to Health (URTH) guidance has yet to be finalized. As monitoring is initiated in 1993, it will be necessary for states and Regions to use the URTH values derived from the guidance for V&E's and SNC determinations. The URTH guidance should be finalized and distributed by December 1, 1992, at the latest.	Region VIII	*Vtd 12 HIGH Priority, 1 LOW Priority; GUIDANCE* Guidance is still awaiting signature	Unresolved
X.10	In the preamble (pgs 31824-31825) of the Final Phase V Rule, it states that only systems that are vulnerable to cyanide contamination must monitor for cyanide. However, this is not stated in §141.23 of the codified language.	Safe Drinking Water Hotline	Vtd 15 HIGH Priority; TECHNICAL FIX	Unresolved
XI.8	Grandfathering - monitoring/samples under extension agreements? How does standard monitoring framework affect monitoring in states with waivers?	Region X	OGWDW Guidance now underway from NY SWTR court decision	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
XI.12	Alternative Methods: Asbestos - What about use of Phase Contract Microscopy as a screen for asbestos? With PCM use Fiber Count but not worry about Fiber type. If total count > than 7,000,000 - no asbestos problem. PCM is cheaper and much more commonly available. Would this not be similar to PCB screen? Pesticides - Amino Assay Analysis - qualitative (detect/non-detect) analysis for families of pesticides. If acceptable detection thresholds are demonstrated - can AAA be used as 1st round monitoring - when tied to state vulnerability process. Systems detecting occurrence would be required to use specific analytical methods? What about combinations for meeting monitoring requirements. AAA much cheaper.	Region X	Evaluated above	Guidance/ clarification required
XIV.5	Could the ASDWA national registry for certified laboratories be used as a repository for certification information under Phases II/IIB/V/VIB? States could use this information to make decisions regarding reciprocal certification and guide PWSs to laboratories that perform specialized analysis (e.g., dioxin, asbestos)?	Region VII	Evaluated above, see V.18	Guidance/ clarification required
XIV. 10	Extension Agreements - How are the extension agreements for Phase V being handled in cases where Phase II Agreements have already been signed?	Region VII	OGWDW GUIDANCE Voted 1 MEDIUM Priority, 13 LOW Priority; REGULATORY LONG-TERM	Guidance/ clarification required
XV.2	Language Accuracy - i.e., no such thing as "waiver by rule" or "baseline monitoring."	Unknown	Evaluated above	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
XIX.5	Since an MCL violation would normally be based on the average of two samples, is failure to collect the second sample treated as a monitoring violation, or as an MCL violation? If a monitoring violation, 40 CFR Part 141.32 requires notification within 90 days; if an MCL violation 141.32 requires community systems to provide electronic notice within 72 hours.	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required
XIX.6.	Since it seems to fit neither type of violation exactly, is there a suggested format or required language for the notification?	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required
XIX.7.	In determining a violation, and in order to avoid repeat visits, may two samples collected on the same day be used?	Maryland	Vtd 2 HIGH Priority, 6 MEDIUM Priority, 2 LOW Priority; GUIDANCE State Guidance w/Reg. assistance	Guidance/ clarification required
XXI.3	Unregulateds monitor once.	Region I	Evaluated above Part of XXI.1	Guidance/ clarification required
XXI.6	HQ has to develop a policy and make a decision on dioxin certification. On specialty contaminants. Needed to do this last year. It was on State ratings.	Region I	Evaluated above	Guidance/ clarification required

ISSUES REQUIRING GUIDANCE OR CLARIFICATION

Ref. #	Current Status / Problem	Source	Workgroup Evaluation	Workgroup Disposition
XXII.1	Support principle that any proposed or promulgated method include all analytes (unregulated, previously regulated) that are in the Scope of the Method.	Unknown	Vtd 8 HIGH Priority; REGULATORY LONG-TERM	Guidance/ clarification required
XXIII. 3	Defining reportable violations. How to deal practically with research efforts and non-certifiable analytical methods that might yield values exceeding the MCL. (Assuming standard monitoring has been performed.) Set up policy that counts only necessary reporting.	Region III		Guidance/ clarification required