

**The Data Sharing Committee's
Recommendations for Lead and
Copper Rule Violation Reporting**

**FINAL
December 29, 1998**

Prepared for the
Office of Ground Water and Drinking Water

by the
Data Sharing Committee

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EXECUTIVE SUMMARY

This report represents the DSC's analysis of the Lead and Copper Rule (LCR) especially as it pertains to violation reporting requirements for the Safe Drinking Water Information System (SDWIS/FED). In preparing this report, the goal of the DSC was to review and analyze the EPA data needs for the LCR, to work in collaboration with the LCR Work Group on reporting issues related to regulatory changes, and to make recommendations regarding other non-regulatory changes in reporting requirements to the Director of the Office of Ground Water and Drinking Water.

Data Sharing Recommendation

The previously described protocol for making data sharing decisions (December, 1995) was followed to arrive at these recommendations. The changes to requirements being recommended in this document were arrived at after lengthy discussion about shortcomings and inconsistencies in the way data are currently reported and the justified need for these data. The committee focused on five major reporting issues, the first four of which were passed on to the LCR Work Group for their consideration and incorporation into the Notice of Data Availability (NODA) and proposed rule changes. The fifth issue, violation reporting, did not require a change to the regulations and was therefore not included in the NODA or proposed rule changes. This report therefore discusses only the DSC's recommendations regarding LCR violation reporting.

The DSC is recommending that the following changes be made to the LCR violation reporting requirements:

That the number of individually reported violation types be reduced from the current 15 to 10 (i.e., that some of the currently individually reported violations be consolidated for SDWIS/FED reporting). (See Page 3 for more detail)

General Implementation Recommendation.

In order to implement any new reporting requirements, a sufficient amount of time must be provided to primacy agencies for planning, budgeting, and implementing. The most time consuming and costly activity that must be performed is the reprogramming of State data systems to manage and transfer the required data in SDWIS data transfer file (DTF) format. In the past, 18 months were provided for this activity. The DSC recommends that States begin reporting under the new requirements in the quarter after the SDWIS update software is modified, but no, later than 18 months after the publishing and effective date for these recommendations, including the publishing of technical documentation. In addition, since most of these recommended changes will actually be preferred by many States, modification to SDWIS/FED should be made as soon as possible to allow for the new reporting so that States are not required to report under the existing requirements for any longer than is necessary. Until the time that these new requirements become effective as described above, the current reporting requirements will remain in effect.

Through this report, the DSC is recommending to make changes to the current LCR reporting requirements which will simplify the requirements and will not significantly change the reporting burden on States. The DSC believes that on balance, the understanding of LCR violation reporting should be improved and therefore the data quality improved since the requirements are being simplified. The burden associated with this reporting however will not change significantly by this recommended change in reporting since the number of violations that must be determined and reported does not necessarily change.

I. INTRODUCTION

A. Background

The LCR is undoubtedly the most complex drinking water regulation promulgated to date. With 11 milestones, 15 violation types, and 90th percentile data, its reporting requirements are also complex. The Data Sharing Committee analyzed the current reporting requirements for the LCR following the protocol previously documented (December, 1995 Protocol for Making Data Sharing Decisions). This report represents the DSC's recommendations on LCR violation reporting. (The DSC continues to work with the LCR Workgroup on reporting requirements that required changes to the regulation, such as milestone data.)

Since all violations must be reported to EPA (CFR § 142.15), the DSC focused on the questions of how these violations are defined, how they can be grouped together for reporting purposes, and how they can be reported to SDWIS/FED. Recommendations on other activities such as data verifications and quarterly data submission checking are also presented. It is the firm belief of the DSC that by simplifying the LCR reporting requirements, the Regions and States will better understand what is to be reported which will in turn increase the likelihood that complete and accurate data are reported to SDWIS/FEID. The overall burden of reporting should also decrease which in turn will increase the possibility of meeting the requirements of a reduced core data set. The ultimate result should be improved quality of data that are the most focused and useful to EPA to support LCR implementation oversight and to measure improvement at reducing lead exposure and improving the safety of public water systems.

The LCR, which was promulgated on June 7, 1991, established treatment technique requirements when lead and/or copper exceed certain levels referred to as action levels. An exceedance occurs when more than 10 percent of the tap water samples collected are greater than the action level of 0.015 parts per million (ppm) for lead or 1.3 ppm for copper. Unlike other drinking water regulations, exceeding the lead and/or copper action level is not a violation. Instead, this exceedance triggers one or more of the following treatment technique (TT) requirements: public education, corrosion control treatment, source water treatment, and lead service line replacement.

Lead and copper results are expressed as 90th percentile levels. For a system collecting 10 samples, this would be the 9th highest lead or copper sample result obtained during a monitoring period. The LCR reporting requirements are based primarily on reporting information about various milestones associated with the LCR and violations of LCR requirements.

On April 12, 1996, the EPA proposed changes to the LCR (61 FR 16348, April 12, 1996 including changes to State reporting requirements. The DSC considered these proposed changes and worked with the LCR Workgroup during their deliberations on reporting requirements. Those data that were specifically mentioned in the regulations (e.g., milestone data) and that require a change to the regulation to implement were deferred to the LCR Workgroup. (This prevented any major duplication of effort since procedures were already in place via the rule development process to ensure that stakeholder involvement was obtained.)

B. Purpose and Goal

This report is a somewhat scaled down version of the DSC's September 26, 1997 recommendation report on the LCR and focuses exclusively on violation data. The original report served two purposes; one, to provide input to

the LCR Workgroup as they considered changes to the regulation, and two, to identify any other problems with the LCR reporting requirements that could be corrected through the data sharing process and through the issuance of guidance. In preparing this report, the goal of the DSC was to review and analyze the EPA data needs for LCR violation data and to make recommendations on changes to the LCR reporting requirements to the Director of the Office of Ground Water and Drinking Water.

C. Protocol for Making Data Sharing Decisions.

The DSC is composed of EPA Headquarters and Regional representatives and State representatives (see text box). The protocol that was followed for making data sharing decisions involved the DSC developing a recommended set of data elements or changes to current reporting requirements or practices after comment and review opportunities by stakeholders and other interested parties; review by the ASDWA/EPA Data Management Steering Committee; review by all States; review by the SDWIS Executive Steering Committee; and, finally, transmittal to the Director of the OGWDW for decision-making and distribution as official reporting requirements or data sharing goals.

PWSS Data Sharing Committee Members as of February, 1998

Carol Amend, Region 3, Chair
 Tom Poleck, Region 5
 Harriet Colbert, OGWDW
 Roger Anzzolin, OGWDW
 Andy Hudock, OECA/ORE
 Bill Davis, Region 6
 Doug Mandy, Minnesota
 Mary Alvey, Oregon
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 Cliff Bowen, California
 Mark Rasso, Region 2
 Andrew Bartlett, Region 4

Other Participants*

Jan Auerbach, OGWDW
 Glen Kedzie, OECA
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 Larry Weiner, OGWDW
 Abe Siegel, OGWDW
 Fran Haertel, Region 6
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 Barry Greenawald, Pennsylvania
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 Vanessa Leiby/Max Kukoy, ASDWA
 ASDWA/EPA Data Management
 Steering Committee

*Other participants were involved during meetings, conference calls, or through written comments. Our apologies to those that we may have omitted from this list.

11. DATA SHARING RECOMMENDATIONS FOR THE LCR VIOLATION DATA

A. Discussion Highlights.

The initial efforts of the DSC focused on the current reporting requirements and what changes should be made to improve the meaning of the data, the use of the data, the quality of the data, and the ease of reporting. Subsequent discussions focused on the justification and cost of reporting/collecting the data, and the overall burden on States to meet any new requirements. When deciding which SDWIS attributes to recommend for inclusion in the Core Data Set, the Data Sharing Committee took the approach that no data should be reported unless EPA has a specific use or need for the data that justifies the cost of States reporting the data. If data are not particularly useful, or if they are very expensive to report compared to their usefulness, the committee would not recommend they be included in the Core Data Set.

In addition, an overarching goal that also influenced the final recommendation, was the desire to obtain high-quality data. Setting overly ambitious and burdensome reporting requirements on States was viewed as counter-productive to this data quality goal.

The complexity of the current LCR reporting requirements has resulted in a decrease in data quality in SDWIS/FED. As the committee has discussed in previous reports, there appears to be an inverse relationship between how complex (and therefore the amount of data and difficulty to understand) reporting requirements are with the quality of data that are reported (or possibly not reported if a State is not aware of what the reporting requirements are). The following recommendations therefore have an inclination toward simplification, although this cannot be at the expense of being able to understand and present the implementation and compliance status of the LCR nationally.

Public access and inquiries from many groups to drinking water data are also increasing. There is an increasing need for EPA to be able to answer at least the fundamental questions and present the basic status of the LCR nationally. The fact that LCR data are now available through EPA's Envirofacts database on the World Wide Web makes the data quality and interpretation concerns even more important to resolve.

The last issue discussed by the committee pertained to the complexity and number of violations that are currently required to be reported. The committee felt that, like the milestone reporting, the amount of data and the variability of the significance of the data leads to confusion and inconsistent and inaccurate data in SDWIS/FED. Changes to the way that violation data are reported to SDWIS/FED do not require a change to the regulations and therefore can be implemented through guidance. The committee therefore is recommending that the violation reporting be simplified to allow EPA to focus on the most significant violations and to ease the burden of reporting this information to SDWIS/FED. In addition, the changes being proposed through the regulatory process for how water quality parameter (WQP) violations are determined had an impact on the recommendation to consolidate the WQP treatment technique violations (Types 59 and 60) into a single type.

B. Background

The reporting by States of violation information is already highly justified (i.e., it is required under the Safe Drinking Water Act (SDWA) and in the National Primary Drinking Water Regulations (NPDWR), it supports the

primary enforcement functions of the EPA, and it is needed in lieu of milestone reporting). The existing SDWIS/FED LCR violation types are summarized below:

SDWIS Violation Type Code	Description
51*	Initial Lead and Copper Tap MIR.
52	Follow-Up or Routine Lead/Copper Tap M/R
53	Initial Water Quality Parameter M/R
54	Follow-up or Routine Entry Point Water Quality Parameter M/R
55	Follow-up or Routine Tap Water Quality Parameter M/R
56	Initial, Follow-up or Routine Source Water M/R
57	Optimal Corrosion Control Study
58*	Optimal Corrosion Control Installation
59	Water Quality Parameter Entry Point Noncompliance
60	Water Quality Parameter Tap Noncompliance
61	Source Water Treatment Recommendation
62*	Source Water Treatment Installation
63	Maximum Permissible Level Noncompliance
64	Lead Service Line Replacement
65*	Public Education

*Can currently lead to SNC status

Fifteen violation types are significantly more than must be reported for any other regulation. The number of violations along with the significant other reporting under the LCR leads to a level of complexity that hampers correct and complete reporting. During the DSC's discussions on this issue, several scenarios for how violation reporting could be simplified were considered. The following is the DSC's recommendation and alternative options that were also considered.

Four violation types, namely #51, 58, 62, and 65 currently can lead to a system being classified as a significant noncomplier (SNC). When the initial reporting guidance was developed, these four violations were judged as the most significant from an enforcement prioritization and targeting standpoint.

C. Recommendation

The following option is recommended by the Data Sharing Committee:

Recommended Option: Consolidate violations into fewer types

The DSC believes that a certain amount of violation consolidation is possible without hampering the primary EPA uses of this information of compliance tracking and enforcement targeting. As an example, violation types 53, 54 and 55 could be combined into one " water quality parameter monitoring" violation type, although the reporting format of differing monitoring periods would need to be solved. These technical reporting problems would be solved during the development of the reporting guidance that would be provided as part of making these official changes to the LCR reporting requirements.

The table below shows the specific violation type recommendations being made by the DSC.

Violation Type Code:	Description	Data Sharing Committee Recommendation
51	Initial Lead and Copper Tap M/R	Leave as is. Most systems have already done initial monitoring. These violations will only be reported for new system or systems in continued noncompliance. To maintain consistency in the data base keep these as is.
52	Follow-Up or Routine Lead/Copper Tap M/R	Leave as is.
53	Initial Water Quality Parameter M/R	Combine with 54 and 55 violations to have one Water Quality Parameter Monitoring violation type. Most systems already should have done initial monitoring but very few violations are in the database. If we change the code, changing them will not be much of a burden.
54	Follow-up or Routine Entry Point Water Quality Parameter M/R	Combine with 53 and 55 to have one Water Quality Parameter Monitoring violation type.
55	Follow-up or Routine Tap Water Quality Parameter M/R	Combine with 53 and 54 have one Water Quality Parameter Monitoring violation type.
56	Initial, Follow-up or Routine Source Water M/R	Leave as is.
57	Optimal Corrosion Control Study / Recommendation	Combine with 61 for one "Study/Recommendation" type violation. There was no need expressed to report these violations separately.

Violation Type Code:	Description	Data Sharing Committee Recommendation
58	Optimal Corrosion Control Installation Demonstration	Combine with 62 for one "Installation" type violation. There was no need expressed to report these violations separately.
59	Water Quality Parameter Entry Point Noncompliance	Combine with 60 for one WQP TT violation type.
60	Water Quality Parameter Tap Noncompliance	Combine with 59 for one WQP TT violation type.
61	Source Water Treatment Recommendation	Combine with 57 for one "study" type violation. There was no need expressed to report these violations separately.
62	Source Water Treatment Installation	Combine with 58 for one "Installation" type violation. There was no need expressed to report these violations separately.
63	Maximum Permissible Level Noncompliance	Leave as is. There was some discussion of combining this with 59 and 60 violations but the longer compliance period here would bury the more critical 59 violations.
64	Lead Service Line	Leave as is.
65	Public Education	Leave as is.

The following table shows the results of the consolidation discussed above. The original 15 violation types are reduced to 10.

Current Violation Type Codes	Description	Comments
51	Initial Lead and Copper Tap M/R	No change.
52	Follow-up or Routine Lead/Copper Tap M/R	No change.
53, 54, & 55	Initial, Follow-up, or Routine WQP M/R	Combination of violation types 53, 54, and 55.

Current Violation Type Codes	Description	Comments
56	Initial, Follow-up, or Routine Source Water M/R	No change.
57 & 61	Study / Recommendation Violation	For OCCT or SOWT.
58 & 62	Installation Demonstration Violation	For OCCT or SOWT.
59 & 60	WQP Noncompliance	Combination of violation types 59 & 60.
63	MPL Noncompliance	No change.
64	Lead Service Line Replacement	No change.

Pros

Some States have expressed a need or desire to report fewer violation codes. Consolidating violation types may alleviate the burden for some states to maintain and report the more detailed violation types.

It would reduce the number of violation codes and in so doing, make queries pertaining to the LCR violations less difficult to write and less complicated.

EPA has a responsibility to learn of violations from State primacy agencies and to assess the appropriateness of State responses to all violations. Consolidating violations could still provide the information the agency needs because all violations would still be reported only in a consolidated format.

Consolidated violation reporting would be consistent with the reporting done under the Surface Water Treatment Rule where all monitoring and treatment technique violations are consolidated into single types.

Cons

Some States may have to modify their data reporting systems if we change the existing codes.

Differing monitoring periods could make SNC determinations more difficult, or at the least

may require a modification to the SNC definitions. Changing this reporting would cause a problem with using and understanding historical data (i.e., data reported using the original codes).

The following alternative options were also considered by the committee. They are being presented below for discussion purposes and to be considered during any review of this document,

Alternative Option 1: Status Quo; leave the violation reporting as is.

This option would leave the 15 violations codes (from 51 through 65) intact as required SDWIS/FED reporting requirements. The existing violation codes are shown in the background material above.

Pros

Leaving the codes as they now are would keep the violation data in the database consistent.. Historical information could be analyzed along with new information without special efforts to interpret the data.

More detailed analysis of compliance oversight could be conducted.

States would not have to modify their data systems if they had already done so to meet the current requirements.

Cons

Some States have expressed a need or desire to report fewer violation codes. The existing 15 codes are more detailed than the reporting requirements for any other rule.

The existing number of violation codes is so large (15) that many queries pertaining to the LCR violations will be difficult and complicated to write and understand.

Alternative Option 2: Similar to the recommended version but with one less consolidation.

This option is similar to the recommended option, but does not consolidate the WQP noncompliance violations (Types 59& 60). The following table shows the results of this consolidation. The original 15 violation types are reduced to 11.

Current Violation Type Codes	Description	Comments
51	Initial Lead and Copper Tap M/R	No change.

Current Violation Type Codes	Description	Comments
52	Follow-up or Routine Lead/Copper Tap M/R	No change.
53, 54, & 5.5	Initial, Follow-up, or Routine WQP M/R	Combination of violation types 53, 54, and 55.
56	Initial, Follow-up, or Routine Source Water M/R	No change.
57 & 61	Study / Recommendation Violation	For OCCT or SOWT.
58 & 62	Installation Demonstration Violation	For OCCT or SOWT.
59	WQP Entry Point Noncompliance	No change.
60	WQP Tap Noncompliance	No change.
63	MPL Noncompliance	No change.
64	Lead Service Line Replacement	No change.
65	Public Education	No change.

Pros

Basically the same as for the recommended option (see above).

Gaining some more detail, but since neither of these violation types lead to SNC status, not gaining much from a SNC tracking perspective. Will gain a more detailed understanding of the WQP TT violations that occur.

Cons

Basically the same as for the recommended option (see above).

Not as simplified. May make reporting slightly more burdensome.

Alternative Option 3: Report fewer violation types

This option may not be viable since according to the Safe Drinking Water Act and the National Primary Drinking Water Regulations, all violations are to be reported to EPA. Reporting fewer violation types would mean identifying, particular violations under the LCR that the EPA would require information about. As an example, under the LCR, public water systems are required to submit a site sampling plan to primacy agency and have it approved. If the PWS does not submit a plan, it is in violation. Under the 15 existing codes, this violation is to be reported as a Type 51 violation (Initial M/R) although some States may not consider the failure to submit a sampling plan a 51 violation. Some states do not accept initial LCR tap sampling results if the site sampling plan is not in place so the PWS would eventually receive a 51 violation. A distinctive site sampling plan violation is not currently reported. This same logic could be applied to other violations where only the most significant ones would then be reported.

Having said that, it would be possible to reduce the number of reported violation types further, but still account for all of the possible violations under the rule. As an example, the following table shows a more extreme consolidation of violation types, focusing on a couple of different types of monitoring violations and capturing all others with a generic treatment technique and M/R violation types. Another slight variation of this approach would be to leave the Type 65 (Public Education) violation as a separate violation due to its unique characteristics and the fact that it can currently lead to SNC status.

Violation Type Code	Description	Data Sharing Committee Recommendation
51	Initial Lead and Copper Tap M/R	Leave as is. Most systems have already done initial monitoring. These violations will only be reported for new system or systems in continued noncompliance. To maintain consistency in the data base keep these as is.
52	Follow-Up or Routine Lead/Copper Tap M/R	Leave as is.
53	Initial Water Quality Parameter M/R	Combine with 54 and 55 violations to have one Water Quality Parameter Monitoring violation type. Most systems already should have done initial monitoring but very few violations are in the database. If we change the code, changing them will not be much of a burden.
54	Follow-up or Routine Entry Point Water Quality Parameter M/R	Combine with 53 and 55 to have one Water Quality Parameter Monitoring violation type.

Violation Type Code	Description	Data Sharing Committee Recommendation
55	Follow-up or Routine Tap Water Quality Parameter M/R	Combine with 53 and 54 have one Water Quality Parameter Monitoring violation type.
56	Initial, Follow-up or Routine Source Water M/R	Leave as is.
57	Optimal Corrosion Control Study / Recommendation	Combine into one generic LCR TT violation type.
58	Optimal Corrosion Control Installation Demonstration	Combine into one generic LCR TT violation type.
59	Water Quality Parameter Entry Point Noncompliance	Combine into one generic LCR TT violation type.
60	Water Quality Parameter Tap Noncompliance	Combine into one generic LCR TT violation type.
61	Source Water Treatment Recommendation	Combine into one generic LCR TT violation type.
62	Source Water Treatment Installation	Combine into one generic LCR TT violation type.
63	Maximum Permissible Level Noncompliance	Combine into one generic LCR TT violation type.
64	Lead Service Line Replacement	Combine into one generic LCR TT violation type.
65	Public Education	Combine into one generic LCR TT violation type.

The following table shows the results of the consolidation discussed above. The original 15 violation types are reduced to 5.

Current Violation Type Codes	Description	Comments
51	Initial Lead and Copper Tap M/R	No change.
52	Follow-up or Routine Lead/Copper Tap M/R	No change.
53, 54, & 55	Initial, Follow-up, or Routine WQP M/R	Combination of violation types 53, 54, and 55.
56	Initial, Follow-up, or Routine Source Water M/R	No change.
57 through 65	Lead and Copper Rule TT Violation	Combination of violation types 57 through 65.

Pros

The rule is complex and some violations are more important than others.

Reporting fewer violation types would help to focus on the most significant violations.

Fewer violation types to report would presumably save State resources in some instances.

Fewer violation types could be more meaningful since several related requirements are not grouped together as a single violation type (e.g., failure to conduct initial monitoring would mean just that instead of perhaps failure to submit a sampling plan).

Training staff on less complicated reporting requirements would be easier; the more violation types, the more complicated the training.

May lead to improved data quality since the reporting would be less complex and more understandable.

Cons

EPA has a responsibility to learn of violations from State primacy agencies and to assess the appropriateness of State responses to all Violations. The agency tries to define the most significant violations, which require formal enforcement responses due to continued noncompliance or due to a large single event deviation from the requirement.. Even a less important violation like that described above would become important if it continued long enough. Without every type of violation being

reported either by itself or consolidated with others, the agency may not become aware of some significant situations and would not be meeting the requirements of the SDWA.

The reconciliation of historically reported violations according to the original guidance with this more condensed format may not be possible or at a minimum may be confusing.

Some States may have to modify their data reporting systems if we change the existing structures.

By consolidating in this extreme manner, specificity is lost and it becomes more difficult to get a picture of what problems the water systems are having. The addition of the major/minor flag as a reporting requirement for these consolidated TT violation types could help distinguish between the truly serious violations and the minor ones.

Alternative Option 4: Report more violation types

Although the current reporting requirements require more violation types under the LCR than under any other rule (15), the rule is complex and could easily be broken into more types. To use a prior example, the requirement to submit a site sampling plan could be reported as a specific violation type.

Pros

EPA has a responsibility to learn of violations from State primacy agencies and to assess the appropriateness of State responses to all violations. Violation information could more completely be assessed by the Agency if more violation types were reported.

Eliminates any redundancy or ambiguity in the way violations are reported since separate types are identified for every possible violation.

Cons

Some States have expressed a need to report fewer violation codes. The existing 15 codes are more detailed than the reporting requirements for any other rule. Adding more codes only makes this worse.

The existing number of violation codes is so large (15) that many queries pertaining to the LCR violations will be difficult to write and complicated. Defining more violation codes would make the problem worse.

States have problems with training staff on these requirements. The more violation types, the more complicated the training

D. Cost of Including this Information

The recommended changes fall within the current format and reporting to SDWIS/FED. The consolidation of violation codes would require minor changes to the SDWIS/FED edit/update

processing software. It is not expected that the recommended change would cause a significant increase in reporting burden.

E. State and Regional Comments on Final Draft

The Final Draft (dated October 29, 1998) of this recommendation report was sent out to the ASDWA membership and to the Regions for comment. Five states commented on the proposed recommendations; Texas, Missouri, Wisconsin, Maryland and West Virginia. Three states, Texas, Missouri, and West Virginia agree with the DSC recommended consolidation of violation reporting. Maryland and Wisconsin both prefer Alternative Option 2 which is, different from the DSC recommendation in that it does not consolidate violation types 59 and 60. Maryland's comment is:

"Maryland does not agree with combining violation types 59 and 60 since point-of-entry WQP testing and distribution/tap WQP testing follow two different schedules. It would be easier for States to track these violations separately, and will help avoid confusion."

DSC Response: As with several of the other situations where violation types were consolidated for purposes of reporting to EPA, the States will need to track the individual violation types as per the LCR. This recommendation is not suggesting that States necessarily change the way they are currently tracking compliance with the LCR, but only in the way the information is forwarded to EPA. In addition, changes being made through the technical rule fixes will make the tracking and reporting of all water quality parameter violations more consistent with the DSC's recommended option. The DSC therefore prefers the recommended option and is hopeful that the details behind the actual reporting of these violations will be satisfactorily described in the revised reporting guidance that will follow.

III. IMPLEMENTATION ISSUES

There are several programmatic and technical issues that were considered during the data sharing decision making process and that influenced the final recommendation. The more significant issues are summarized below.

A. Programmatic and Organizational Issues Associated With Implementation

One issue that influenced the recommendations made in this report was the need to track systems in significant non-compliance. Most of the data reported under the LCR is compliance related and used by EPA to track the compliance status and to prioritize and target enforcement/compliance assurance activities.

The EPA initiatives to reduce the reporting burden on States and to reduce reporting frequency by 50% also played a role in the recommendations made in this report. This issue was reinforced by the SDWIS ESC in their directive to the DSC to analyze the cost to the States of any new reporting requirements. Although cost was considered in developing the recommendations in this report, justification of the data need and benefits of reporting and the fact that violation reporting is required under the SDWA was an equal, if not greater, determining factor. In addition, it was agreed that

improving the quality and meaningfulness of the data would increase the positive aspects of reporting and decrease the negative aspects. Some of the cost associated with these recommended changes can be thought of as offset by the improvements in data quality that will be realized.

B. Technical Issues

The changing of any reporting requirements cannot be made without considering several technical issues. The following list contains some of the technical tasks that must be completed before any new reporting requirement can become effective.

1. The SDWIS architecture must be able to accommodate the needed attributes.
2. OGWDW must reprogram the SDWIS edit/update programs to allow for the data to be entered correctly into SDWIS/FED.
3. The State must collect and maintain the data (preferably in an information management system) in a manner to ensure quality.
4. The State must reprogram their data conversion and transfer programs so that the data can be submitted in the acceptable DTF format, or could use the FRDS Data Entry (FRDS_DE) program and enter the data manually. This step will not be necessary for SDWIS/STATE States assuming that SDWIS/STATE is modified to meet all of the LCR reporting requirements.