

2. Reporting Requirements for Source Water Monitoring

a. Data elements to be reported.

Proposed reporting requirements for LT2ESWTR monitoring stem from proposed analytical method requirements. As stated in sections IV.K and IV.L, systems must have *Cryptosporidium* analyses conducted by EPA-approved laboratories using Methods 1622 or 1623. *E. coli* analyses must be performed by State-approved laboratories using the *E. coli* methods proposed for approval in section IV.K. Systems are required to report the data

elements specified in Table IV–29 for each *Cryptosporidium* analysis. To comply with LT2ESWTR requirements, only the sample volume filtered and the number of oocysts counted must be reported for samples in which at least 10 L is filtered and all of the sample volume is analyzed. Additional information is required for samples where the laboratory analyzes less than 10 L or less than the full sample volume collected. Table IV–30 presents the data elements that systems must report for *E. coli* analyses.

As described in the following section, EPA is developing a data system to

manage and analyze the microbial monitoring data that will be reported by large systems under the LT2ESWTR. EPA is exploring approaches for application of this data system to support small system data reporting as well. Systems, or laboratories acting as the systems' agents, must keep Method 1622/1623 bench sheets and slide examination report forms until 36 months after an equivalent round of source water monitoring has been completed (e.g., second round of *Cryptosporidium* monitoring).

TABLE IV–29.—PROPOSED *Cryptosporidium* DATA ELEMENTS TO BE REPORTED

Data element	Reason for data element
Identifying information	
• PWSID	Needed to associate plant with public water system.
• Facility ID	Needed to associate sample result with facility.
• Sample collection point	Needed to associate sample result with sampling point.
• Sample collection date	Needed to determine that utilities are collecting samples at the frequency required.
• Sample type (field or matrix spike) ¹	Needed to distinguish field samples from matrix samples for recovery calculations.
Sample results	
• Sample volume filtered (L), to nearest ¼ L ²	Needed to verify compliance with sample volume requirements.
• Was 100% of filtered volume examined? ³	Needed to calculate the final concentration of oocysts/L and determine if volume analyzed requirements are met.
• Number of oocysts counted	Needed to calculate the final concentration of oocysts/L.

¹For matrix spike samples, sample volume spiked and estimated number of oocysts spiked must be reported. These data are not required for field samples.

²For samples in which <10 L is filtered or <100% of the sample volume is examined, the number of filters used and the packed pellet volume must also be reported to verify compliance with LT2ESWTR sample volume analysis requirements. These data are not required for most samples.

³For samples in which <100% of sample is examined, the volume of resuspended concentrate and volume of this resuspension processed through IMS must be reported to calculate the sample volume examined. These data will not be required for most samples.

TABLE IV–30.—PROPOSED *E. coli* DATA ELEMENTS TO BE REPORTED

Data element	Reason for collecting data element
Identifying Information	
PWS ID	Needed to associate analytical result with public water system.
Facility ID	Needed to associate plant with public water system.
Sample collection point	Needed to associate sample result with sampling point.
Sample collection date	Needed to determine that utilities are collecting samples at the frequency required.
Analytical method number	Needed to associate analytical result with analytical method.
Method Type	Needed to verify that an approved method was used and call up correct web entry form.
Source water type	Needed to assess <i>Cryptosporidium</i> indicator relationships.
<i>E. coli</i> /100 mL	Sample result (although not required, the laboratory also will have the option of entering primary measurements for a sample into the LT2ESWTR internet-based database to have the database automatically calculate the sample result).
Turbidity Information	
Turbidity result	Needed to assess <i>Cryptosporidium</i> indicator relationships.

b. Data system. Because source water monitoring by large systems (serving at least 10,000 people) will begin 6 months following promulgation of the LT2ESWTR, EPA expects to act as the primacy agency with oversight responsibility for large system sampling,

analysis, and data reporting. To facilitate collection and analysis of large system monitoring data, EPA is developing an Internet-based electronic data collection and management system. This approach is similar to that used under the Unregulated Contaminants

Monitoring Rule (UCMR) (64 FR 50556, September 17, 1999) (USEPA 1999c).

Analytical results for *Cryptosporidium*, *E. coli*, and turbidity analyses will be reported directly to this database using web forms and software that can be downloaded free of charge.