



## July 28, 2011 Wastewater Data in Database Management Systems Teleconference Summary Notes

On July 28, 2011, Minnesota Pollution Control Agency (MPCA) staff met via teleconference and in-person with wastewater Permittees using laboratory information management systems (LIMS) or a system like LIMS for their data management. The intent of the meeting was to help MPCA staff better understand the data export capabilities of these systems in light of the electronic Discharge Monitoring Report (eDMR) submittal system enhancement project. This project will require the submittal of all daily results instead of summary DMR calculation values.

Approximately 38 people, including seven MPCA staff, representing 15 Permittees and three laboratories attended the teleconference.

In advance of the meeting, attendees were emailed a list of data fields expected to be included in an enhanced eDMR data transfer and questions for discussion during the teleconference. Attendees were told that we expect the following fields will be in enhanced eDMR data transfer:

Permit number, Report start date, Report end date, Submission Date (recorded by system), Station type code & ID, No discharge indicator (station level), No chlorine flag (maybe), Comments, Parameter, Variability of treatment, Sample Date, Sample Time (optional), Reported value, Qualifier, and Sample type.

The questions for discussion are outlined in the technical discussion section of these minutes and are individually followed by a summarization of teleconference attendees' comments.

After MPCA introductory remarks and attendee introductions, MPCA technical staff led discussions that center on the provided questions. The following summarizes each question's discussion:

- How many different 'flavors' of LIMS or similar systems are out there and are there enough similarities to allow us to use one format for all? Is there a standard format? Name brands of software?

*There are multiple systems in use throughout the state. The different systems appear to be generally capable of exporting data to common interchange formats like Tab Delimited or Excel. Exporting capabilities to XML is not clear although there was some interest in using XML as an optional data submittal format. HachWIMS, e-OPS, OPS SQL, and Report View are some of the brands of software in use in Minnesota.*

- Do your LIMS systems have just analytical data from labs, or also temp, flow, pH, etc.?

*Some systems include all data; others include only analytical data. Some Permittees use multiple data locations to complete DMRs. Some systems have restrictions on character use.*

- What are the systems' data transfer (import/export) capabilities, varieties, formats?
- What format would you prefer MPCA's system use?
  - a. Spreadsheet, tab-delimited text file, CSV, XML, etc.

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- b. How many would expect different options (hand entry, spreadsheet, etc.)?

*Systems are capable of transferring data in multiple formats. Most attendees expressed a preference for spreadsheet formats and some indicated an interest in using XML. MPCA staff hope to design the system to accommodate a number of formats and will continue to work with permittees on data submission formats.*

- How do you currently incorporate permit changes into your systems?
  - a. Do you rely on the paper DMR's to do the changes or do you take the information directly from the permit?
  - b. How much lead time do you need to make the changes to your system?

*Permittees said they rely on their permits to identify changes. Changes to things like pH, dissolved oxygen, etc., could be done relatively quickly – maybe in a week. Larger changes take more time but most likely can be done within a month.*

- For those who are using the existing eDMR system, it would be ideal to get some feedback on what works well and what does not.

*This was not discussed in depth. Some Permittees previously provided information about this via email prior to the meeting. In general, Permittees like the system. Some have experienced some problems. All want to be informed of system changes prior to their occurrence.*

In addition to the questions provided, MPCA staff asked Permittees about how they acquire data for their DMR completion now. The response was that many use multiple data sources for DMR completion now and will continue to do so in the future.

Both MPCA staff and Permittees expressed some confusion about data submittal and data required for the enhanced eDMR system.

To clarify the requirements: The data would be submitted once a month, quarter, year, etc., just as it is now. At a minimum, Permittees would be required to submit the data they use to calculate values for their DMRs. Here are some examples of what we consider individual data:

- TSS. Your permit requires you meet a TSS Calendar Month Average limit each month and sample once per week. You would report four –five individual sample values each month dependent on when samples were collected.
- Flow. Your permit requires you monitor the volume of flow discharged quarterly and to monitor once per quarter. You would report one individual result in the month when the monitoring occurred.
- CBOD. Your permit requires you meet a CBOD Daily Max limit each quarter and sample once per month. You would report one individual sample value each month.

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Municipal and some industrial Permittees now submit this data in hard copy on supplemental spreadsheet forms. In the enhanced eDMR system, the data would be transmitted electronically. The MPCA system would complete the permit required summary calculations using this data and provide Permittees the ability to review the calculation results prior to their transmittal into the MPCA database. Both of these concepts are changes for Permittees. Many industrial Permittees do not currently submit the additional data. Currently, all Permittees are responsible for calculating the summary data (for example, Calendar Month Average).

Permittees expressed concern about these changes and whether permit modifications were required to implement the changes. MPCA still has policy issues to resolve regarding these changes. We hope to make implementation as seamless as possible and to avoid permit modifications.

Permittees also expressed concern about data security and public access to the additional data. Because the enhanced eDMR system would continue to work in its online portal, security is not an issue. All data submitted to the MPCA is public data. MPCA's intent is to provide the public easy access to Permittee compliance data (for example, the data currently submitted on eDMRs). While the additional data in the enhanced system will be public, MPCA does not intend to provide it via an easy access methodology (for example, on MPCA web pages). For those Permittees already submitting this data via supplemental forms, the data is public and is rarely accessed by the public.

In conclusion, MPCA staff said they will be meeting individually with some Permittees regarding their databases, will have additional stakeholder meetings made up of various groups (small facilities, Industrial facilities, etc) and seek input on the system as the project progresses. Staff also solicited comments and ideas and asked that these be emailed to Deb Lindlief at [deb.lindlief@state.mn.us](mailto:deb.lindlief@state.mn.us). MPCA will continue to provide more information in the future and intends to use several formats for this purpose – additional teleconferences, webinars, statewide meetings, etc.