

July 1, 2006

## **Initial Distribution System Evaluation (IDSE)**

### **What is an IDSE?**

IDSE is an important portion of the Stage 2 Disinfectant Byproduct Rule. It is a one-time study conducted by water systems to identify distribution system locations with high concentration of trihalomethanes (TTHMs) and haloacetic acids (HAA5s).

### ***What is the purpose of the IDSE?***

Water systems will use the results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

### ***How is and IDSE completed?***

There are four options available to systems to meet IDSE requirements. The option available to each water system will depend on technical resources, existing monitoring results, size, and preference.

- 1.) Very Small System (VSS) Waiver: Systems serving fewer than 500 people that have TTHM and HAA5 data automatically receive the VSS waiver unless they are notified by EPA or their state that must conduct an IDSE. Systems receiving VSS waiver have no further IDSE requirements.
- 2.) 40/30 Certification: Systems can fulfill the IDSE requirements by certifying that all individual TTHM and HAA5 monitoring results for compliance with the Stage 1 DBPR are less than or equal to 0.040 mg/L for TTHM and 0.030 mg/L for HAA5 during a prescribed 2-year time period. In addition, the system must not have had any Stage 1 DBPR monitoring violations for TTHM and HAA5 during the same period. The system must submit the required 40/30 certifications and, unless told otherwise by EPA or their state, they have no further requirements under the IDSE.
- 3.) Standard Monitoring: Any system can choose to conduct standard monitoring, even if they receive a VSS or qualify for the certification. Standard monitoring entails 1 year of distribution system monitoring at multiple locations (in addition to Stage 1 DBPR monitoring). The required sampling frequency and minimum number of sample locations depend on population served and source water type. Systems conducting standard monitoring must prepare a standard monitoring plan and IDSE report.
- 4.) System Specific Study (SSS): Systems can meet IDSE requirements using existing monitoring results or a hydraulic model if their data or model meet certain minimum criteria. Systems conducting an SSS must prepare an SSS plan and IDSE report. Refer to the *IDSE Guidance Manual* if you are considering this option.

**How does your water system determine the IDSE schedule and option?**

Your IDSE schedule, option, and other requirements depend on your system characteristics. In general, there are three system characteristics that drive IDSE requirements.

- 1.) Whether you are a subpart H system or a ground water system.
- 2.) The population served by your system.
- 3.) If you are a consecutive or wholesale system, the population served by the largest system in your combined distribution system.

For consecutive or wholesale systems your schedule is based on the population served by the largest system in your combined distribution system. For all other systems, your schedule is based on the population served by your individual system.

Schedules are assigned as shown in the table below.

| If you are this kind of system:  | You are on IDSE schedule number | Your first deadline is |
|--|---------------------------------|------------------------|
| Systems belonging to a combined distribution system in which the largest system serves 100,000 people or more  | 1                               | October 1, 2006        |
| Systems belonging to a combined distribution system in which the largest system serves 50,000 to 99,999 people | 2                               | April 1, 2007          |
| Systems belonging to a combined distribution system in which the largest system serves 10,000 to 49,999 people | 3                               | October 1, 2007        |
| Systems serving fewer than 10,000 people and not connected to a system serving 10,000 people or more           | 4                               | April 1, 2008          |

Every system subject to the Stage 2 DBPR should receive a letter from EPA or the state with information on the Stage 2 DBPR and a determination of IDSE schedule.

Water systems on schedule 1 should already be collecting DBP data throughout their system and using pipe mapping software to map the layout of their systems.

**How will Ecologistics Limited help your water system meet IDSE deadline?**

First, through gathering information about your water system we will determine your water system's option. VSS is automatic and your water system will be notified if you qualify. If your water system's option is either 40/30 Certification or SSS, Ecologistics Limited will

assist your water system in the compilation of your existing data and/or hydraulic model. Reports will then be prepared and sent to IDEM prior to your water system schedule's deadline. Fees depend on a number of conditions. 40/30 Certification reports will be prepared by Ecologistics Limited for a fee of a few hundred dollars. If the water system will use the SSS option Ecologistics Limited will prepare this report by the deadline for a fee of a few hundred dollars. If your water system will need a hydraulic model, this model will be prepared by Ecologistics Limited for a fee that depends on the various characteristics of your water distribution system. This could be typically as low as a few thousand dollars.

In situations where Standard Monitoring must be completed, multiple locations must be monitored in addition to Stage 1 monitoring. Ecologistics Limited will assist your water system in determining what locations to monitor and the frequency with which they should be monitored for a fee around a thousand dollars. A full price chart is listed below.

| <b>IDSE Option</b>  | <b>What you need to qualify for this option</b>                | <b>Typical Fees</b>                |
|---------------------|--|------------------------------------|
| VSS                 | Nothing - automatic if you qualify                             | \$0                                |
| 40/30 Certification | Acceptable Stage 1 DBPR results for 2 years                    | A few hundred dollars              |
| Standard Monitoring | By choice or if you do not qualify for the other options       | Around a thousand dollars          |
| SSS                 | Existing data/hydraulic model that meets minimum criteria      | A few hundred dollars              |
| SSS                 | If your system needs assistance in preparing a hydraulic model | Starting at a few thousand dollars |

The ISDE deadlines, as noted above, are fast approaching. Please make sure that your water system is prepared, call Ecologisitcs Limited for assistance.

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**Glossary:**

|              |            |  |
|--------------|------------|--|
| IDSE         | stands for | Initial Distribution System Evaluation |
| TTHMs        | stands for | trihalomethanes                        |
| HAA5s        | stands for | haloacetic acids                       |
| Stage 2 DBPR | stands for | Stage 2 Disinfectant Byproduct Rule    |
| VSS          | stands for | Very Small System Waiver               |
| EPA          | stands for | Environmental Protection Agency        |
| SSS          | stands for | System Specific Study                  |

For further explanation of the drinking water rules associated with contaminants targeted by the Stage 2 Disinfectant Byproduct Rule contact:

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