

CHAPTER

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Engineering Evaluations (Sanitary Surveys)

An engineering evaluation (or in Federal vernacular sanitary survey) consists of an on-site inspection followed by the preparation of an evaluation report regarding the overall performance of a public water supply. The purpose of the evaluation is to determine if a community water supply is complying with State Regulations and related standards and review operation and maintenance of the water supply. The primary goal of the evaluation is to identify sanitary risks that may interrupt the multiple barriers of protection at a water supply. The Illinois EPA recognizes the importance of these evaluations and strives to inspect all community water systems as frequently as possible (at least once every three years). The Illinois EPA staff has adopted procedures to ensure that the eight essential elements of a sanitary survey (as defined by the EPA/State Joint Guidance on Sanitary Surveys, the interim enhanced surface water treatment rule and ground water rule) are addressed.

Specifically, the Illinois EPA evaluates the following at the time of the survey:

- water source;
- treatment;
- distribution system;
- finished water storage;
- pumps, pump facilities and controls;
- monitoring, reporting and data verification;
- water system management and operations;
- operator certification with State regulations.

Additionally, as part of the evaluation, Illinois EPA inspectors conduct proactive reviews of community water system cross-connection control programs, security measures and financial (to a limited degree), managerial and technical capacity.

Significant Deficiencies

Following completion of the engineering evaluation, significant deficiencies are reported by mail to respective water supplies as alleged violations of state law and regulations. Water supply officials are required to formally respond to the Illinois EPA with a plan to correct these deficiencies on a

timely basis. (For practical purposes, these apparent violations are identified in Attachment A of a noncompliance advisory letter issued to the water supply owner and operator.) If corrective actions cannot be taken in a timely fashion or a dispute arises, the Illinois EPA may follow-up the noncompliance advisory letter with a notice of violation. Once the violation notice is issued, the formal enforcement process is initiated, as noted in the Illinois Environmental Protection Act.

Another significant element of the engineering evaluation involves technical recommendations made by Illinois EPA inspectors to aid in the water supply capacity development. (Not violations, these recommendations are identified in Attachment B of a noncompliance advisory letter issued to the water supply owner and operator.) The Illinois EPA inspectors point out to water system officials that failure to act on these recommendations may ultimately lead to possible contamination events and future violations as described previously.

Commonly asked questions/concerns:

Who is responsible for completing the engineering evaluation?

Believe it or not, while the Illinois EPA staff conducts all engineering evaluations in Illinois, each water system, according to federal and state regulations is responsible for having a current (every three year) evaluation of their system. The Illinois EPA has even been criticized by federal auditors for not taking enforcement action against water systems with outdated evaluations. Obviously, a lack of state staff is the reason for delays in these assessments and is not the fault of the water systems.

What should a water system do to prepare for an engineering evaluation?

Very little. If your water system is operating as it should, little preparation is necessary. You should have records of your systems performance and various program activities (e.g., cross-connection control, lead and copper, total coliform site plans, etc.) available for review. Other records that may be helpful are past evaluation reports, source water assessments, monitoring and maintenance records, construction details of system infrastructure components, and operations and management-related records. Furthermore, you may receive a capacity development survey to complete prior to your engineering evaluation visit. By completing this form, and reviewing the included elements, you may identify areas that need your attention. By completing this prescreening form, you will likely somewhat expedite the evaluation process.

On the day of my evaluation, what should I do and what should I expect?

Once again, very little. Be prepared to take some time with the Illinois EPA inspector and make sure to request identification when they arrive at your facility. There have been several incidents where unscrupulous individuals have passed themselves off as state employees. Once identification has been established to your satisfaction, open your door and your books.

You should expect the Illinois EPA inspector to be courteous and inquisitive. Depending on the complexity of your water supply and the thoroughness/accessibility of your records, you should anticipate spending up to several hours with the inspector. You should not be offended by probing questions or requests to check certain records. Remember, the stakes are high with direct public health consequences.

What do I do after my engineering evaluation?

Following your engineering evaluation (usually within 30 days), you will be formally presented in writing the Illinois EPA's findings regarding your water supply. As described above, you will need to closely review this document. Any apparent violations (Attachment A) contained within the noncompliance advisory must be formally addressed with a written corrective action plan submitted to the Illinois EPA Regional Office originating the evaluation. You will also be asked to respond to the recommendations identified in the evaluation of your water system (Attachment B).

Remember to be prompt. You will normally be asked to respond back to the Illinois EPA within 45 days of receiving your evaluation. Failure to respond promptly or completely on your part, no matter how minor you feel the apparent violation is, leaves no option for the Illinois EPA Regional Office staff but to refer the matter to the Central Office for issuance of a notice of violation. Once again, this initiates the formal enforcement process.

What if I don't understand something or disagree with a finding within the evaluation?

Call the Illinois EPA Regional Office and ask for help or discussion. If this fails, call the Springfield Central Office and ask to speak to the Division of Public Water Supplies Field Operations Section Manager. Please see the *Introduction* section of the Handbook for a listing of Illinois EPA contact information.