In 1978, the U.S. Environmental Protection Agency (EPA) implemented a certification program for laboratories that analyze drinking water samples so that they would comply with Safe Drinking Water Act regulations. If a lab is certified, it means that it has met the requirements outlined under EPA’s program, such as having quality assurance and quality control procedures in place as well as adequate numbers of trained personnel.

All states that have primacy must have certified laboratories conduct all compliance testing. The only exceptions to this rule are for tests conducted for turbidity, free chlorine residual, temperature, and pH. In these cases, any laboratory that the state finds acceptable may perform the tests.

**Why is certification important?**

When a laboratory is certified, it ensures accuracy of test results and compliance with standards. It also means that personnel have been trained in quality control protocol, such as sample handling and quality assurance. In essence, the purpose of certification is to determine that an applicant for certification has the necessary competence, equipment, and capability to perform the required analytical procedures.

**Who certifies labs?**

Laboratory certification can be done either by the EPA or the state primacy agency in that particular state. EPA has a National Exposure Research Laboratory based in Cincinnati, Ohio (NERL-Ci) that certifies EPA regional laboratories for chemistry and microbiology. The National Exposure Research Laboratory in Las Vegas (NERL-LV) has the responsibility for certifying labs in radiochemistry.

EPA has designated regional certification officers who are responsible for the certification of the principal state laboratory in each state. Each state also is required to maintain a list of certified labs.

**How do labs become certified?**

Laboratory certification is a long and intricate process, involving several levels of supervision by different agencies. EPA’s Office of Ground Water and Drinking Water (OGWDW) and Office of Research and Development (ORD) are jointly responsible for implementing the certification program for laboratories that analyze drinking water samples at the national level. They oversee the certification programs of EPA regions. Each EPA region, in turn, oversees the certification programs in the states. States are required to establish and maintain a state program for the certification of laboratories conducting analyses of drinking water.

They must designate a certification officer, certified by the EPA, as the person responsible for the certification program. States are responsible for the certification of the public and private laboratories in their state. So, NERL-Ci and NERL-LV are responsible for certifying the regional laboratories, the regions...
are responsible for certifying their state laboratories, and the states are responsible for certifying private laboratories.

How does the program operate?

The OGWDW and the EPA regions conduct an onsite audit once every three years. They evaluate the labs based on criteria such as equipment, adherence to standard procedures, program’s scope, staffing, resources, policy, procedures, effectiveness, training and experience of personnel, and using performance evaluation (PE) samples. These audits are conducted for each regional laboratory for chemistry and microbiology and principle state laboratories for radiochemistry. In the years in which there is no audit, the labs are surveyed using questionnaires.

What are the requirements?

To be classified as a certified laboratory, regional laboratories must successfully analyze a set of performance evaluation samples (PEs) at least annually for all regulated contaminants for which they wish to be certified. Labs also must pass an onsite evaluation at least once every three years.

Once a year, principal state laboratories must successfully analyze a complete set of unknown PE samples from a source acceptable to the region for the contaminants included in the regulations that the state has adopted.

The OGWDW and ORD prepare and distribute PE samples for regulated chemical, microbiological, and radiological contaminants semiannually and evaluate and distribute the results of these studies. Each of the EPA regions performs an annual review of state certification programs and performance evaluation results and monitors the adequacy of state programs for certifying laboratories.

How can well owners get tested?

If you are a well owner, EPA has guidelines for you to get your water tested. You should contact your state’s certification officer to get the name of a state certified lab in your community. You also may call NESC toll free at (800) 624-8301, and a representative will look up that number for you.

Reference


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