

Permitting and Regulation of Water Supply Systems

Under the Pennsylvania Safe Drinking Water Act (“SDWA”),³²⁹ the term “public water supply system” extends to far more than just typical municipal and public utility systems. Regulations apply to any system that provides water to the public for human consumption which has at least 15 service connections or which regularly serves an average of at least 25 individuals at least 60 days out of the year. Such systems include both community water systems (which supply year-round residents) and non-community water systems. Non-community water systems encompass non-transient systems, that service at least 25 of the same persons over 6 months of the year, and transient systems, where service is provided to 25 persons (not necessarily the same individuals) at least 60 days out of the year. Examples of non-transient systems may be self-supplied factories and shops with 25 or more employees, while transient systems include, for example, self-supplied restaurants or stores where more than 25 varying customers may use water. The state program extends beyond the scope of the counterpart federal drinking water program by also bringing under regulation bottled water and bulk water vending operations.

Building upon the federal program and standards adopted by EPA, the state’s safe drinking water program incorporates a combination of permitting requirements, drinking water standards, treatment standards, monitoring requirements, reporting and notification mandates.

Permitting Requirements

In general, a permit is required under the SDWA for the construction, modification and operation of any community or non-community water system.³³⁰ This includes facility water systems using private supplies (wells or stream withdrawals) that supply employees or customers, if the facility serves 25 persons or more at least 60 days out of the year.

Special permitting provisions, however, provide some permit exceptions or streamline processes for self-supplied commercial and industrial facilities.³³¹ First, a noncommunity system that holds a valid permit or license issued after December 8, 1984 under the Public Eating or Drinking Place Act,³³² the Seasonal Farm Labor Act,³³³ or the Public Bathing Law³³⁴ is exempted from obtaining a separate SDWA permit, but must meet all of the design, construction and operating requirements of 25 Pa. Code Ch. 109, Subchapters F and G.³³⁵ Further, a noncommunity system is not required to obtain a construction and operation permit if (i) the sources of supply are all groundwater sources that require no treatment other than disinfection to meet primary maximum contaminant levels (“MCLs), (ii) the water supplier files a brief system description with DEP, and (iii) the system meets all design, construction and operating requirements of Subchapters F and G.³³⁶

329 35 P.S. §§721.1 - 721.17.

330 25 Pa. Code §109.501.

331 25 Pa. Code §109.505.

332 35 P.S. §655.1 *et seq.*

333 43 P.S. §§1301.101-1301.606.

334 35 P.S. §672 *et seq.*

335 25 Pa. Code §109.505(1).

336 25 Pa. Code §109.505(2).

Drinking water standards, treatment standards and monitoring requirements

The SDWA program is built around a two types of standards. The first category involves required quality standards, which define maximum contaminant levels (“MCLs”) limiting the concentrations of specified contaminants measured at the consumer’s tap. These include “primary” MCLs designed to protect public health, and “secondary” MCLs that are aimed at aesthetic concerns (such as color and taste). In this regard, Pennsylvania has incorporated by reference all of the federal primary MCLs, and all of the federal secondary MCLs (except for copper).³³⁷ Pennsylvania has also adopted a separate secondary MCL for aluminum.³³⁸

The second type of drinking water standard specifies minimum treatment techniques, such requirements for filtration of waters drawn from surface sources or groundwater that may be under the influence of surface waters.³³⁹ Notably, unlike the counterpart federal rule, which allows some exceptions to the requirement for filtration, the Pennsylvania rules require that all water systems using surface water sources provide continuous filtration and disinfection.

Drinking water standards are undergoing nearly constant revision. Under several amendments to the federal Safe Drinking Water Act, EPA has been mandated to establish drinking water standards for specific contaminants, and to develop five new standards every five years, based on risk analyses and cost-benefit considerations. Other evolving and expanding standards include the enhanced surface water treatment rule and regulations governing the byproducts of disinfection processes (such as halogenated compounds resulting from chlorine disinfection). As a result of the changing regulatory requirements, facility operators need to monitor federal and state regulatory developments closely, and plan ahead for potential system upgrades or operating changes.

Reporting and notification requirements

The SDWA rules require system operator to monitor both source water and the quality of finished treatment water. The contaminants covered, and the scope and frequency of such monitoring depend upon the nature of sources involved, and the type and size of the system.³⁴⁰ Special monitoring requirements may be imposed by DEP on a case-by-case basis if (i) the Department has reason to believe an MCL is being violated; (ii) public health threats created a need for additional monitoring beyond the usual schedule; or (iii) DEP has reason to believe an unregulated contaminant is present that creates a health risk to system consumers.³⁴¹

In turn, these monitoring requirements are linked to mandates for notification to water system consumers and the agency when monitoring shows non-compliance with drinking water standards. The notification rules establish three tiers of notice. Tier 1 involves violations and situations with a significant potential to have serious adverse effects on human health as a result of short-term exposure. Tier 2 includes all other violations and situations described in §109.407(a), including situations involving failure to comply with primary MCLs, failure to comply with prescribed treatment technique requirements, failure to conduct required monitoring, operation under a variance or exemption, availability of unregulated contaminant monitoring data. Tier 3 involves all other violations and situations.³⁴² In general, a system operator must notify DEP within one hour of a Tier 1 violation, and notice must be provided to system consumers as soon as possible, but in all cases within 24 hours.³⁴³ For Tier 2 violations, notice must be provided to DEP within one hour, with notice to consumer as soon as possible, but not later than 30 days after the system learns of the violation.³⁴⁴ Notices must be provided to system consumers by means reasonably designed to reach water system users. In the case of a noncommunity system, such as a self-supplied commercial or industrial

337 25 Pa. Code §109.202(b)(1)-(2).

338 25 Pa. Code §109.202(b)(3).

339 25 Pa. Code §§109.202(c), 109.605.

340 See 25 Pa. Code §§109.301-109.302.

341 25 Pa. Code §109.302.

342 25 Pa. Code §109.407(b).

343 25 Pa. Code §109.408.

344 25 Pa. Code §109.409.

facility, such notice may be given through posting at water fountains and sinks throughout the facility, bulletins to workers, and similar methods designed to reach personnel at the facility. The form and content of such notices are prescribed in the SDWA regulations, and includes a description of the problem, the potential adverse health effects, the populations at risk, whether alternative water supplies should be used, what the system operator is doing to correct the problem, and a point of contact for further information.³⁴⁵

In addition to these notification requirements as to water system problems, *community* water systems must also prepare and provide to consumers an annual “consumer confidence report” containing information about the quality of system water and the risks, if any, from exposure to contaminants detected in the drinking water.³⁴⁶ These consumer confidence reports are typically distributed with water bills, and systems serving more than 100,000 persons must post its report on an internet site. Where an enterprise obtains water from a public water system, it is prudent to review and keep on file copies of such reports, as they may prove useful when responding to employee questions or concerns regarding the source and quality of water being distributed within a facility.

Lead and Copper Issues

Whether a facility receives water from a public system or is self-supplied, one particular concern that may affect many facility operators arises from lead and copper released into drinking water, particularly as a result of leaching from plumbing. The SDWA rules impose particular requirements on public systems to monitor periodically for lead and copper concentrations at the consumer tap.³⁴⁷ Systems which encounter sample results above designated action levels are required to undertake follow-up actions, including public education programs and evaluation and implementation of programs to reduce water corrosivity. However, where buildings and other facilities have lead or copper plumbing, and where a water system’s water is somewhat corrosive and/or water may stagnate in pipes (as, for example, over night or weekends), a facility owner may find it necessary to post internal notices against potable use of water delivered at the tap and provide bottled water as a potable supply for use by employees and visitors, or install point-of-use filtration units to intercept the lead or copper.

345 25 Pa. Code §109.411(a).

346 25 Pa. Code §109.416.

347 25 Pa. Code §§109.1101-109.1103.