

**TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 626. PUBLIC WATER SUPPLY CONSTRUCTION STANDARDS**

Subchapter 1. Introduction
252:626-1-2 [AMENDED]
Subchapter 3. Permit Procedures
252:626-3-2 [AMENDED]
252:626-3-6 [AMENDED]
252:626-3-7 [AMENDED]

SUBCHAPTER 1. INTRODUCTION

252:626-1-2. Definitions

Terms have the meaning assigned in the Environmental Quality Code. The following words or terms, when used in this Chapter, have the following meaning unless the context clearly indicates otherwise:

"25-year flood" means a flood event that has a 4 percent chance of being equaled or exceeded in magnitude in any given year.

"100-year flood" means a flood event that has a 1 percent chance of being equaled or exceeded in magnitude in any given year.

"ANSI" means the American National Standards institute.

"APHA" means the American Public Health Association.

"API" means the American Petroleum Institute.

"Approvable", **"Approve"**, **"Approved"** mean a submission to the DEQ that shall be considered a final submission, all preliminary discussions between the DEQ and the permittee regarding the requirements of a submission shall be concluded prior to the submission, so that the submission shall be deemed complete as submitted.

"ASTM" means the American Society for Testing Materials.

"AWWA" means the American Water Works Association.

"Board" means the Environmental Quality Board.

"Calculated dose" means the RED calculated using the dose-monitoring equation that was developed through validation testing.

"Cartridge filter" means a filter that is manufactured by placing a flat sheet membrane media between a feed and filtrate support layer and plating the assembly to increase the membrane surface area within the cartridge. The pleat pack assembly is then placed around a center core with a corresponding outer case and subsequently sealed, via adhesive or thermal means, into its cartridge configuration.

"Certified waterworks operator" means an operator licensed by the State of Oklahoma pursuant to OAC 252:710.

"CFR" means Code of Federal Regulation.

"Challenge test" means a study conducted to determine the removal efficiency (i.e. log removal value [LRV]) of a membrane material for a particular organism, particulate or surrogate.

"Clean-in place (CIP)" means the periodic application of a chemical solution or series of solutions to a membrane unit for the intended purpose of removing accumulated foulants and restoring permeability and resistance to baseline levels, commonly used for in-situ chemical cleaning.

"Combined distribution system" means the interconnected distribution system consisting of the distribution systems of wholesale systems and of the consecutive systems that receive finished water.

"Consecutive system" means a public water supply system that receives some or all of its finished water from one or more wholesale systems. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

"Council" means the Water Quality Management Advisory Council.

"CT" means the product of "residual disinfectant concentration" (C) in mg/l, and the corresponding "disinfectant contact time" (T) in minutes, i.e., "C" x "T". CT requirements for a variety of disinfectants and conditions appear in the EPA Guidance Manual to the Surface Water Treatment Rule.

"CT Value" means the product of disinfectant residual and disinfectant CT. The required amount of CT needed is contained in the EPA Guidance Manual to the Surface Water Treatment Rule.

"DEQ" means the Oklahoma Department of Environmental Quality.

"Design-build" means a project delivery method in which one entity works under a single contract with the project owner to provide design and construction services.

"Design package" means a submittal to DEQ for an approvable design-build flexible construction permitting process. The number and scope of design packages is defined and set in the approved engineering report with the last design package encompassing the final and completed 100% project design.

"Differential pressure" means a pressure drop across a membrane module or unit from the feed inlet to concentrate outlet, as distinguished from transmembrane pressure (TMP), which represents the pressure from across the membrane barrier.

"Direct integrity testing" means a physical test applied to a membrane unit in order to identify and/or isolate an integrity breach.

"Director" or "Executive Director" means the Executive Director of the Oklahoma Department of Environmental Quality.

"Effective size" means from a particle-size distribution curve, it is the diameter where 10% of the material is finer.

"Element" means a term used to describe an encased spiral-wound membrane module and is synonymous with the terms module and cartridge.

"Engineer" means a professional engineer licensed to practice engineering in Oklahoma.

"ETV" means the EPA's Environmental Technical Verification Program. **"EPA"** means the United States Environmental Protection Agency. **"FDA"** means the United States Food and Drug Administration.

"Flexible permitting process" means construction permitting for a design-build project that is approved to start construction with multiple design packages, noting that an approved DEQ construction permit is required before construction or modification of a public water supply system begins. Construction is limited to the scope of the approved design package(s).

"Flood Plain" means the flood way and a zone of floodwater storage where water moves slowly or is ponded, thus attenuating the flood peak as the flood waters move downstream.

"Flood way" means the part of the flood plain considered to be the zone of highest hazard and the zone to be reserved for the passage of larger floods.

"Flux" means the throughput of a pressure-driven membrane filtration system expressed in terms of flow per unit of membrane area.

"GWUDI" means groundwater under the direct influence of surface water.

"Hydraulic analysis" means the study of the water system network, evaluating water flows within the distribution system under prescribed conditions, such as peak hourly flow plus fire flow when required. Hydraulic analysis includes consideration of all factors affecting system energy losses.

"Indirect integrity monitoring" means the monitoring of an aspect of filtered water quality,

such as turbidity, that is indicative of the removal of particulate matter at a frequency of no less than once every fifteen (15) minutes.

"Individual water system" means a water system serving only one single-family residence.

"Iron and manganese control" means the treatment process designed specifically for the treatment or removal of iron and manganese.

"Membrane unit" means a group of membrane modules that share common valving which allows the unit to be isolated from the rest of the system for the purpose of integrity testing or other maintenance, synonymous with the terms rack, skid and train.

"Minor public water supply system" means a water system not included in the public water supply system definition. Minor public water supply systems are regulated by OAC 252:624.

"Multi-family dwelling" means a single structure designed and suitable for use of several or many families.

"Municipal system" means public water supply distribution systems constructed, operated, and maintained by a municipality or trust for the benefit of such municipality.

"mm" means millimeter

"nm" means nanometer.

"NSF" means the National Sanitation Foundation. **"OAC"** means the Oklahoma Administrative Code. **"O.S."** means the Oklahoma Statutes.

"OWRB" means the Oklahoma Water Resources Board.

"Package treatment plant" means plants that are pre-manufactured used to treat water that do not meet conventional standards for flocculation and sedimentation.

"Plan documents" means reports, proposals, preliminary plans, survey and basis of design data, general and detail construction plans, profiles, specifications, and all other information pertaining to water supply planning.

"Pitless unit" means an assembly which extends the upper end of the well casing to above grade to prevent the entrance of contaminants into the well or potable water supply, to conduct water from the well, to protect the water from freezing or extremes of temperature and to provide fill access to the well and to parts within the well.

"psi" means pounds per square inch.

"Public Water Supply (PWS) system" means any system providing water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days per year, whether receiving payment for same or not. Multi-family dwellings, mobile home parks, recreational vehicle (RV) parks, and correctional facilities, which are constructed, inspected and maintained under a State or locally approved plumbing code, purchase water from a permitted water system, do not provide treatment, and do not resell water, are not classified as a Public Water Supply system. The following are the categories of Public Water Supply systems:

(A) **"Community water system"** means any PWS system that serves at least fifteen (15) service connections used by year-round residents or regularly serves at least twenty-five (25) year-round residents.

(B) **"Non-community water system"** means any PWS system that serves an average of at least twenty-five (25) individuals at least sixty (60) days per year but is neither a community water system nor a non-transient non-community water system.

(C) **"Non-transient non-community (NTNC) water system"** means any PWS system that is not a community water system and that regularly serves at least twenty-five (25) of the same persons over six (6) months per year.

"Purchase water system" means any system, which purchases all of its water through a master meter and provides that water to the public.

"Reduced pressure zone, backflow preventer" means a device designed to prevent backflow consisting of two spring loaded check valves with an intermediate reduced pressure zone that drains

to the atmosphere by a relief valve, with a reduced pressure maintained in the intermediate zone by means of a pressure differential valve.

"Reduction Equivalent Dose (RED)" means the UV dose derived by entering the log inactivation measured during full-scale reactor testing into the UV dose-response curve that was derived through collimated beam testing. RED values are always specific to the challenge microorganism used during experimental testing and the validation test conditions for full-scale reactor testing.

"Required Dose" means the UV dose in units of mJ/cm^2 needed to achieve the target log inactivation for the target pathogen.

"Residuals" means the sludge generated by a drinking water treatment facility.

"Rip rap" means a permanent, erosion resistant ground cover that consists of hard, sound durable stones, which average in weight between thirty pounds (30 lbs.) to fifty pounds (50 lbs.), with no more than twenty percent (20%) weighing less than twenty pounds (20 lbs).

"Rural water system" means a water system designed to provide domestic water service to an area having its major part outside of an incorporated community. This system may be organized as a trust authority, a rural water district, or non-profit water corporation.

"Silt density index (SDI)" means the ASTM, standard D 4189-95, *Standard Test Method for Silt Density Index of Water*. Measurements are taken by filtering a water sample through a 0.45mm flat sheet filter with a 47mm diameter at a pressure of 30 psi. The time required to collect two samples at 500 ml each is measured and the resulting data is imputed into a formula.

"Solids contact unit" means a combination rapid mix, floc-aggregation, and upflow sedimentation basin constructed in either a round or square configuration.

"Standard methods for the examination of water and wastewater" means the approval methods developed by the APHA, the AWWA and the Water Environmental Federation. The current standard methods are contained in the 20th Edition, published by the AWWA.

"Sufficiency certification" means to provide assurance that the integrity and capacity of an existing system will not or have not been compromised.

"Transmembrane pressure (TMP)" means the pressure drop across the membrane barrier.

"UL" means the Underwriters Laboratory.

"Uniformity coefficient" means from a particle-size distribution curve it is, the ratio of the 60 percent grain size to the 10 percent grain size.

"U.S.C." means United States Code.

"UV" means ultra violet.

"UV absorbance" means a measure of the amount of UV light that is absorbed by a substance at a specific wavelength, across a specified pathlength of substance. This measurement accounts for absorption and scattering in the medium. Standard Method 5910B details this measurement method, however, for drinking water applications, samples need not be filtered or adjusted for pH or longer pathlength cuvettes, 4 cm to 5 cm should be used instead of 1 cm cuvette.

"UV dose" means the UV energy per unit area incident on a surface, typically reported in units of mJ/cm^2 or J/m^2 . The UV dose received by a waterborne microorganism in a reactor vessel accounts for the effects on UV intensity of the absorbance of the water, absorbance of the quartz sleeves, reflection and refraction of light from the water surface and reactor walls, and the germicidal effectiveness of the UV wavelengths transmitted.

"UV dose distribution" means the probability distribution of UV doses that microorganisms receive in a flow-through UV reactor, typically shown in a histogram.

"UV inactivation" means a process by which a microorganism is rendered unable to reproduce, thereby unable to infect a host.

"UV intensity" means the power passing through a unit area perpendicular to the direction of propagation. UV intensity is used in the UV Disinfection Guidance Manual (UVDGM) to

describe the magnitude of UV light measured by UV sensors in a reactor and with a radiometer in bench-scale UV experiments.

"UV lamp sleeve" means the quartz tube that houses the UV lamp. The exterior of the lamp sleeve is in direct contact with the water being treated. There is typically an air gap (approx. 1 cm) between the lamp envelope and quartz sleeve.

"UV low-pressure lamp" means a mercury-vapor lamp that operated at an internal pressure of 0.13 to 1.3 Pa (2×10^{-4} to 2×10^{-4} psi) and electrical input 0.5 watts per centimeter (W/cm). This results in essentially monochromatic light output at 254 nm.

"UV low-pressure high-output lamp" means a low-pressure mercury-vapor lamp that operates under increased electrical input (1.5 to 10 W/cm), resulting in a higher UV intensity than low-pressure lamps. This results in essentially monochromatic light output at 254 nm.

"UV medium-pressure lamp" means a mercury-vapor lamp that operates at an internal pressure of 1.3 to 13,000 Pa (2 to 200 psi) and electrical input of 50 to 150 W/cm. This results in a polychromatic (or broad spectrum) output of UV and visible light at multiple wavelengths, including wavelengths in the germicidal range.

"UV off-line chemical clean" means a process to clean lamp sleeves where the UV reactor is taken off-line and a cleaning solution (typically weak acid) is sprayed into the reactor through a service port.

"UV off specification" means a UV facility that is operating outside of the validated operating conditions (e.g. at a flow rate higher than the validated range or UVT below the validated range).

"UV on-line mechanical clean" means a process to clean lamp sleeves where an automatic mechanical wiper (e.g. o-ring) wipes the surface of the lamp sleeve at a prescribed frequency.

"UV on-line mechanical-chemical clean" means a process to clean lamp sleeves where an automatic mechanical wiper (e.g. o-ring) with a chemical solution located within the cleaning mechanism wipes the surface of the lamp sleeve at a prescribed frequency.

"UV sensor" means a photosensitive detector used to measure the UV intensity at a point within the UV reactor that converts the signal to units of milliamps (mA).

"UV transmittance (UVT)" means a measure of the fraction of incident light transmitted through a material. The UV transmittance is usually reported for a wavelength of 254 nm and a pathlength of 1 cm. If an alternate pathlength is used, it shall be specified or converted to units of cm^{-1} . UV transmittance is often represented as a percentage and is related to the UV absorbance (A_{254}) by the following equation (for a 1 cm path length): % UV transmittance = 100×10^{-A} where A is UV absorbance.

"Validated dose" means means the UV dose in units of mJ/cm^2 delivered by the UV reactor is determined through validation testing. The validated dose is compared to the required dose to determine log inactivation credit.

"Water line extension" means an extension of an existing permitted water distribution line.

"WEF" means the Water Environmental Federation, formerly known as the WPCF.

"Wholesale system" means a public water supply system that treats source water as necessary to produce finished water and then delivers finished water to another public water supply system. Delivery may be through a direct connection or through the distribution system of one or more consecutive systems.

"WQA" means the Water Quality Association.

"WTP" means Water Treatment Plant.

SUBCHAPTER 3. PERMIT PROCEDURES

252:626-3-2. Applications

(a) Submit legible applications on forms provided by the DEQ and include:

- (1) the type of entity that is applying
 - (2) the legal description,
 - (3) a minimum of 2 sets of plans and specifications, with at least one set of construction plans printed on 11" x 17" paper and one set of specifications loosely bound that is suitable for scanning,
 - (4) a final design analysis. Provided, an authorized design-build project may use the flexible permitting process upon approval by DEQ as provided in these rules. If design-build is used, the final design package must encompass the entire completed project.
 - (5) all appropriate fees, and
 - (6) engineering report approved by the DEQ for major waterworks projects, or smaller projects utilizing non-conventional processes.
- (b) Public entities other than municipalities must provide certified copies of the results of the last election or appointment of the members of the governing body. Public entities must provide a citation of legal authority to own and operate the proposed facility.
- (c) Applicants other than public entities must provide copies of documents that created them and provide a citation to their statutory authority.

252:626-3-6. Engineering report

- (a) **Copies and timing.** Submit 3 copies of an approvable engineering report as required in OAC 252:626-3-2 for proposed new construction or modifications to PWS systems, at least 30 days prior to the submission of the application for a permit to construct.
- (b) **Purpose.** The purpose of the report is to present the Engineer's findings with enough attention given to detail(s) to allow adequate review of the project by the owner and applicable regulatory agencies.
- (c) **Requirements.** The report must include all information necessary for a comprehensive evaluation of the proposed construction. The report must present, at a minimum, the following:
 - (1) **General information.** Include the following:
 - (A) a description of existing water works and wastewater facilities,
 - (B) identification of the municipality or area served,
 - (C) name and mailing addresses of the owner and official custodian,
 - (D) a statement as to whether the project will be constructed in phases. If the project is to be constructed in phases, the statement will include the number of phases necessary to complete the project and which portions of the project will be completed in each phase,
 - (E) a demonstration that adequate capacity, treatment and compliance with the primary drinking water standards are maintained during construction,
 - (F) a letter from the permittee approving the contents contained in the engineering report as submitted,
 - (G) a map showing legal and natural boundaries of entire service area, and
 - (H) a map showing new service areas or annexed areas.
 - (2) **Extent of water works system.** Include the following:
 - (A) a description of the area to be served,
 - (B) provisions for extending the waterworks system,
 - (C) establish the anticipated design average and peak flows for existing and potential industrial, commercial, institutional and other water supply needs for both the current service area and potential future service areas,
 - (D) a hydraulic analysis that demonstrates that a minimum of 25 psi shall be met at all times throughout the distribution system, and
 - (E) a site plan and schematic layout of treatment facilities.
 - (3) **Alternate plan.** Where feasible and practical, provide a minimum of 3 alternative

solutions and discuss the alternatives, including cost estimates and reasons for selecting the one recommended.

(4) **Soil, ground water conditions, and foundation problems.** The report must include a description of the following:

- (A) the character of the soil where water mains are to be laid,
- (B) soil conditions, which might affect foundations of proposed structures, and
- (C) the approximate elevation of ground water in relation to subsurface structures.

(5) **Water use data.** Provide the following water use data:

- (A) a description of the population trends as indicated by available records, and the estimated population which will be served by the proposed water supply system or expanded system,
- (B) present water consumption of existing systems and the projected average and maximum daily demands that were used as the basis of the design, and
- (C) present or estimated yield of supply source(s) along with a copy of the water rights verification form and/or the purchase water contract.

(6) **Fire flow requirements.** Demonstrate that the plans meet the requirements regarding fire flows pursuant to the *International Fire Code*, published by the International Code Council, Inc., 2003 Edition, *Distribution System Requirements for Fire Protection, M 31*, published by the AWWA, 3rd Edition or other recommendations of similar organizations for the fire service area.

(7) **Sewer system available.** Describe the methods of disposal for sanitary and all other wastewater from the treatment plant.

(8) **Sources of water supply.** For the alternative chosen, the report must describe the proposed source or sources of water supply to be developed, the reasons for their selection, and provide information required by OAC 252:626-7 and the following:

(A) surface water sources, including:

- (i) hydrological data, stream flow and weather records,
- (ii) safe yield, including all factors that may affect it,
- (iii) maximum flood or pool elevation,
- (iv) description of watershed, noting any existing or potential sources of contamination which may affect water quality, and
- (v) quality of the raw water with special reference to fluctuations.

(B) ground water sources, including:

- (i) sites considered,
- (ii) advantages of the site selected,
- (iii) elevations with respect to surroundings,
- (iv) character of formations through which the source is to be developed,
- (v) geologic conditions affecting the site,
- (vi) summary of exploration; test well depth and method of construction; placement of liners or screen; test pumping rates and duration; water levels and specific capacity; chemical and radiological quality of the water,
- (vii) sources of possible contamination including but not limited to wastewater collection and treatment facilities, landfills, outcroppings of consolidated water-bearing formations, waste disposal wells, slush pits, irrigation wells and abandoned wells, and
- (viii) industrial and other private water supply. Where pertinent, use significant ground water developments within a 1 mile radius of the proposed ground water source, giving depths, size, protective casing depth, capacity, location, type and any available information pertaining thereto.

(9) **Proposed treatment processes.** Summarize and determine the adequacy of proposed processes and unit parameters for the treatment of the water under consideration. Pilot studies may be required for innovative design. Post treatment for membrane systems shall be in accordance with OAC 252:626-9-9 (f)(6).

(10) **Residuals management.** Submit a Residuals Management Plan that discusses the wastes and volume generated by existing and proposed water treatment processes, their volume, proposed treatment of waste products, points of discharge or method of disposal or land application.

(11) **Project sites.** Address the following in the report:

- (A) discussion of various sites considered and advantages of those recommended,
- (B) the proximity of residences, industries, and other establishments, and
- (C) any potential sources of pollution that may influence the quality of the supply or interfere with effective operation of the water works system, including but not limited to, absorption systems, septic tanks, privies, sink holes, sanitary landfills, refuse and garbage dumps.

(12) **Cost estimates.** Address the following in the report:

- (A) estimated cost of integral parts of the system,
- (B) detailed estimated annual cost of operation, and
- (C) proposed methods to finance both capital charges and operating expenses.

(13) **Future extensions.** Summarize future needs and services.

(14) **Design-build.** Authorized design-build projects may use the flexible construction permitting process as approved in the engineering report, including:

- (A) Label cover documents prominently as "Design-build";
- (B) Completed attestation form from applicant certifying that project is design-build;
- (C) Description of design packages, including the number (maximum of six), scope of each package, expected schedule of each package, and expected schedule of completion for major construction items;
- (D) The engineering report will address the entire scope of the project at 100% completion.

252:626-3-7. Plans and specifications

(a) Plans and specifications must address the entire project pursuant to the approved engineering report as required in OAC 252:626-3-2. If the applicant plans to phase construction, the approved engineering report shall contain a description of each phase of the project and the sequence of construction to ensure continuity of the system and that adequate capacity will be available for each phase.

(b) All detailed plans must be legible and drawn to a suitable scale. Plans for modifications or extensions to existing systems or plants must indicate clearly the connections or relation.

Include the following:

(1) A general layout sheet that includes:

- (A) title and date,
- (B) name of municipality, rural water district, or other entity or person who owns the system,
- (C) area or institution to be served,
- (D) scale, in feet,
- (E) north point,
- (F) data used,
- (G) boundaries of the municipality, rural water district, or area to be served,
- (H) name, telephone number, and address of the designing engineer,
- (I) the Engineer's seal and signature,

(J) location and size of existing water mains, and

(K) location and nature of existing water works structures and appurtenances affecting the proposed improvements.

(L) authorized design-build projects must label cover documents prominently as “Design-build,” specify the design package number, and reference the approved engineering report number.

(2) Detailed sheets that include:

(A) stream crossings with profiles of the stream bed showing the normal, high and low water levels,

(B) profile sheets with a horizontal scale of not more than 100 feet to the inch and a vertical scale of not more than 10 feet to the inch. Both scales must be clearly indicated. A smaller horizontal scale may be used for rural water distribution systems, but in no case smaller than 500 feet to the inch. Plans with contour intervals of 10 feet or less may be provided in lieu of profiles,

(C) dimensional boundaries of property intended for ground water development. Show location with respect to known references such as street intersections or section lines,

(D) topography and arrangement of existing and proposed wells or structures, with contour intervals not greater than 2 feet. Contour intervals of greater than 2 feet can be used for water line plans. Contour intervals cannot be greater than 10 feet,

(E) elevations of the highest known flood level, floor of the structure, upper terminal of protective casings and outside surrounding grade, using Federal Emergency Management Agency (FEMA) or equivalent elevations as reference,

(F) drawings of well construction, showing diameter and depth of drill holes, casing and liner diameters and depths, grouting depths, elevations and designation of geological formations, water levels and other details to describe the proposed well completely,

(G) location of all existing and potential sources of pollution within 300 feet of the raw water source and within 100 feet of underground treated water storage facilities,

(H) size, length, and identity of sewers, drains, and water mains near the proposed water works,

(I) schematic flow diagrams and hydraulic profiles showing the flow through plant units,

(J) piping in sufficient detail to show flow through the plant, including waste lines, and locations of all sampling taps,

(K) locations of all chemical feeding equipment and points of chemical application, sanitary and other facilities, including but not limited to lavatories, showers, toilets, and lockers,

(L) all appurtenances, specific structures, equipment, water treatment plant waste disposal units and points of discharge,

(M) locations, dimensions and elevations of all proposed and existing plant units,

(N) adequate description of any features not otherwise covered by the specifications,

(O) location of all valves, and

(P) location of all storage tanks, including the capacity of the tanks and top and bottom elevations.

(c) Specifications must:

(1) supply complete, detailed, technical specifications for all parts of the proposed project, including a program for keeping existing water works facilities in operation during construction of additional facilities,

(2) cover in detail materials to be used, methods of making or drilling well(s), dimensions, depth, straightness of the hole, required logs, tests, records, locations of water formations, grouting or cementing, shooting and final testing of the well(s), for ground water systems,

(3) provide supporting data regarding reliability of operation, maintenance and operator training, if automatic equipment is proposed. Provide manual override for any automatic controls;

(4) be written so that a representative of the manufacturer will check the installation and supervise initial operation of the major items of mechanical equipment and pumps,

(5) provide complete sets of all special tools and accessories required for operation and maintenance, together with parts lists, and operation and maintenance manuals for each piece of mechanical equipment, and

(6) provide for an Operation and Maintenance (O & M) Manual for the operation and maintenance of the public water supply system. The O & M Manual shall include at a minimum:

(A) System Treatment Requirements;

(B) Description, Operation and Control of the Water Treatment Plant;

(C) Control of Unit Processes;

(D) Laboratory Testing;

(E) Common Operating Problems;

(F) Start-Up Testing and Procedures;

(G) Standard Operating Procedures;

(H) Alternative and Emergency Operations;

(I) Emergency Shutdown Operations and Emergency Response;

(J) Records Control and Retention;

(K) Safety;

(L) Public Water Supply System Maintenance Records;

(M) Stormroom and Inventory System; and

(N) Utilities.

(d) File as-built plans (plans of record) which identify any changes to the DEQ approved plans and specifications and an Engineer's certification that the construction was completed according to the requirements of this Chapter within 6 months after the project is completed.