

Louisiana Standards Forum

Point Person: Dirk Barrios

Part #2 Email for comments to watercommittee@la.gov

Louisiana Public Water Systems

- 1,378 Public Water Systems in the State
 - 1,033 systems serve communities
 - 345 systems serve non-communities
 - 1,278 systems use ground water
 - 100 systems use surface water

Population served	Community	Non-community
> 100,000	7	0
50,000 - 99,999	8	0
10,000 – 49,999	52	0
500 – 9,999	563	75
< 500	403	270

Treatment Type	Number of Systems
Chloramines	85
Chlorine Gas	629
Chlorine liquid	643
Chlorine Dioxide	22
Ozone	6
Fluoridation	33
Membranes	4
Proposed UV	3



Louisiana Standards Committee

- Mission – to develop the Louisiana standards to be placed within the State Sanitary Code for water works construction, operation, and maintenance by August 2014.

Committee members represent:

- DHH – OPH (2)
- Louisiana Municipal Association (2)
- Louisiana Rural Water Association (2)
- Police Jury Association of Louisiana (2)
- Louisiana Engineering Society (2)
- Southwest Section of American Water Works Association (2)
- National Association of Water Companies (2)
- Louisiana Section of American Society of Civil Engineers (2)
- Louisiana Environmental Action Network (1)



Louisiana Standards Committee

- Meet monthly to develop construction, operation, and maintenance standards applicable to Louisiana Public Water Supplies. 2012 Ten State Standards will be used as basis.
- Committee meetings are subject to the Louisiana Open Meetings Law and shall be held at DHH headquarters in Baton Rouge.
- Committee meeting information can be found at: www.dhh.la.gov/watercommitte.
- Forums will be held for each of the following Parts to allow for public comment:
 - Part 1 - Submission of Plans
 - Part 2 - General Design
 - Part 3 - Source Development
 - Part 4 - Treatment
 - Part 5 - Chemical Applications
 - Part 6 - Pumping Facilities
 - Part 7 - Finished Water Storage
 - Part 8 - Distribution System Piping and Appurtenances
 - Part 9 - Waste Residuals
 - Part 10 - Backflow Prevention
 - Part 11 - Forward



Part 2 GENERAL DESIGN

2.0 GENERAL

2.1 DESIGN BASIS

2.2 PLANT LAYOUT

2.3 BUILDING LAYOUT

2.4 LOCATION OF STRUCTURES

2.5 ELECTRICAL CONTROLS

2.6 STANDBY POWER

2.7 SHOP SPACE AND STORAGE

2.8 LABORATORY FACILITIES

- 2.8.1 Testing equipment
- 2.8.2 Physical facilities

2.9 MONITORING EQUIPMENT

2.10 SAMPLE TAPS

2.11 FACILITY WATER SUPPLY

2.12 WALL CASTINGS

2.13 METERS

2.14 PIPING COLOR CODE

2.15 DISINFECTION

2.16 OPERATION AND MAINTENANCE MANUAL

2.17 OPERATOR INSTRUCTION

2.18 SAFETY

2.19 SECURITY

2.20 FLOOD PROTECTION

2.21 CHEMICALS AND WATER CONTACT MATERIALS

2.22 OTHER CONSIDERATIONS

Policy Statements:

INFRASTRUCTURE SECURITY

PRE-ENGINEERED WATER TREATMENT PLANTS

AUTOMATED/UNATTENDED OPERATION OF SURFACE WATER TREATMENT PLANTS



Comments

- **2.0 General Design Considerations**
- **2.3 Building Layout**
- **j. Chemical storage and feed equipment in a separate room to reduce hazards and dust problems.**
- Add to this sentence the following: if and when the chemicals are to be stored inside a room.



Comments

- **2.6 Dedicated standby power shall be required by the reviewing authority so that water may be treated and/or pumped to the distribution system during power outages to meet the average day demand. Alternatives to dedicated standby power may be considered by reviewing authority with proper justification.**
- **Carbon monoxide detectors are recommended when fuel-fired generators are housed.**
- Discretionary – “Alternatives may be considered” is discretionary. If this were to be applied to booster stations in the distribution system, we strongly object due to the high cost to equip these stations with generators (in larger water systems).
- Standby power requirements should not be “one-size-fits all.” There should be no blanket standby power requirement. Instead, each public water system should be evaluated separately, based on, among other things, the number and types of customers it serves, its history of power outages, its proximity to the main power



Comments

- source or “high priority” installations (e.g., a hospital), the probability of a prolonged power outage (greater than 24 hours), whether it has elevated storage, and its location vis-à-vis risks for power outage (i.e., a potable water system located within a hurricane zone – where the risk of power outage is high – may warrant different treatment than a public water system that is not located within a hurricane zone).
- Small public water systems (serving less than 500 customers) should not be required to have standby power; medium size public water systems (serving 500 to 5000 customers) should be encouraged to have an alternate power supply (but not required to have standby power); and large systems (serving more than 5000 customers) generally should be required to have an alternate power supply.
- If a public water system located in a low risk area has elevated storage that will satisfy average demand for 12 hours, no alternate power supply should be required.
- Any alternatives to dedicated standby power should be clearly defined in the standards.



Comments

- **2.8 Each public water supply shall have its own equipment and facilities for routine laboratory testing necessary to ensure proper operation.**
- Discretionary – Clarification needed on “routine”. Will equipment like TOC analyzers, particle counters, Ion Chromatographs, etc. one day be considered routine? If so, this equipment will be very costly and often requires highly technical staff to operate. The decision to outsource certain analyses should be a decision made by the water system.



Comments

- **2.8.1 As a minimum, the following lab equipment shall be provided:**
- **a. Surface water supplies shall provide the necessary facilities for microbiological testing of water from both the treatment plant and the distribution system. The reviewing authority may allow deviation from this requirement.**
- Discretionary – “may” is the discretionary word. Will DHH allow deviation from this standard or will it one day become a requirement? If DHH ever discontinues bacteriological analysis, water systems should have the option to outsource bac-t analysis. Micro labs are very expensive and require technical staff.



Comments

- **2.8.2 Physical facilities**
- **Sufficient bench space, adequate ventilation,.....and auxiliary facilities shall be provided.**
- Clarification – what are auxiliary facilities and how would this be enforced?

- **2.9 Monitoring Equipment;**
- Delete this paragraph in its entirety and refer to the LA Sanitary Code or set definitive requirements for required monitoring.



Comments

- **2.11 Facility Water Supply**
- **The facility water supply service line and the plant finished water sample tap shall be supplied from a source of finished water at a point where all chemicals have been thoroughly mixed, and the required disinfectant contact time has been achieved (see Section 4.4.2). There shall be no cross-connections between the facility water supply and any piping, troughs, tanks, or other treatment units containing wastewater, treatment chemicals, raw or partially treated water.**
- Add to this paragraph the following. Service water supply taps may be made immediately after treatment before the required disinfection contact time if necessary.



Comments

- **2.14 Piping Color Code**
- Add the following to the end of this section:
- In lieu of the color coding of pipes as described above, all pipes may be painted similar colors as long as each and every pipe is banded and labeled at five foot intervals with the name of the liquid or gas clearly displayed on the pipe. Arrows indicating the direction of flow should be included in this labeling. The background color of labels should comply as closely as possible with the color scheme described above.
- In the last sentence of the last paragraph of this part delete the words “in some cases it may be advantageous to”.



Comments

- **2.15 Disinfection**
- **All wells, pipes, tanks, and equipment....shall be disinfected in accordance with current AWWA procedures.**
- Contradiction – The contradiction is not with TSS, it is with AWWA and the LA Sanitary Code regarding the disinfection (& bacteriological sampling) of water system components.



Comments

- **2.19 Security**
- **Security measures shall be installed and instituted as required by the reviewing authority. Appropriate design measures to help ensure the security of water system facilities shall be incorporated. Such measures, as a minimum, shall include means to lock all exterior doorways, windows, gates and other entrances to source, treatment and water storage facilities. Other measures may include fencing, signage, close circuit monitoring, real-time water quality monitoring, and intrusion alarms.**
- In the first sentence of this paragraph delete the words “as required by the reviewing authority” and stipulate exactly what security measures are required as a minimum.



Comments

- **2.20 Flood Protection**
- **Other than surface water intakes, all water supply facilities and water treatment plant access roads shall be protected to at least the 100 year flood elevation or maximum flood of record, as required by the reviewing authority. A freeboard factor may also be required by the reviewing authority.**
- Economic Hardship – Should be only applied as design criteria. This requirement would be impossible to meet in South Louisiana for existing systems. Elevations have changed over the years and the cost to correct this would be unaffordable.
- Delete the last sentence of this paragraph that states: "A freeboard factor may also be required by the reviewing authority."
- In the last sentence of this paragraph delete the word "may" and establish definitively whether a freeboard factor will or will not be required and if so how much.



Comments

- **General -- Reservation of Right to Make Further Comments.**

GOWC notes that the Water Committee is in the early stages of developing Louisiana standards for the design, operation, and maintenance of Water systems (Louisiana Standards), and GOWC has not had sufficient time to review the Ten State Standards or their effect on GOWC operations. GOWC thus reserves the right to make comments in addition to those set forth herein on the Ten State Standards and any proposed Louisiana Standards, including, without limitation, on Parts 1 and 2 of the Ten State Standards. In particular, and without limitation, GOWC reserves its right to further comment on alternate power supply requirements set forth in Part 3 of the Ten State Standards, including Section 3.2.1.3 thereof.



Comments

- **General -- Prospective Application of Louisiana Standards.**

GOWC submits that the newly developed Louisiana Standards generally should be applied prospectively and should not be applied wholesale to public water systems that have already been approved for operation by the Department.

- **General -- Flexibility by the Department.**

GOWC submits that the Louisiana Standards should be designed in a way that provides the Department maximum flexibility to waive, or otherwise reduce the impact of, any particular provision of the Louisiana Standards, when reasonable to do so. The Louisiana Standards should include specific provisions that provide the Department this flexibility.



Comments

- Please keep in mind that this is not an all-inclusive list and that future objections may arise by water systems not represented on this committee. Accordingly, I would ask that consideration is given for providing a mechanism for these water systems to make their case; and include a provision that allows for future modification of the final document if warranted.

