

# **General Order 103** **Working Group Report**

**California Public Utilities Commission**  
**Division of Water and Audits**

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September 12, 2008

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## ***I. Introduction/ Overview***

### ***A. Executive Summary***

This Working Group (WG) Report provides the WGs' recommended changes to General Order 103, "Rules Governing Water Service Including Minimum Standards for Design & Construction" which resulted from an extensive WG evaluation process that took place from March through June 2008. This Report also provides: 1) an overview of the WG evaluation process, 2) a summary of the specific WGs' recommended GO 103 changes, and 3) Division of Water and Audits (DWA) Staff's recommendations.

The WGs' recommended changes to GO 103 are aligned with the Commission's objectives outlined in the December 20, 2007, Order Instituting Rulemaking (R.07-12-015.) Listed below are the five objectives the Commission outlined in the Rulemaking, a summary of the WGs' GO 103 recommended revisions associated with each objective, as well as several key issues that may need to be addressed:

#### ***1) Add minimum standards for operation and maintenance of water and sewer systems***

- a) The applicability of GO 103 was expanded to include wastewater system utilities, a new broader term recommended by the WG participants that includes sewer service systems and recycled water systems associated with customer services that regulated water and/or sewer utilities are providing or may provide in the future.
- b) The minimum Operation and Maintenance (O&M) standards for water utilities were updated to current industry standards and made consistent with the California Department of Public Health's (Department) Waterworks Standards, California Code of Regulations (CCR) Title 22, and other applicable regulations.
- c) The O&M requirements were revised to require water utilities to prepare and submit to DWA O&M procedures instead of O&M plans;
  - i) Submission of an O&M plan by a water utility is required when the utility prepares an O&M plan for the Department

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due to deficiencies in a utility's system(s) operation or maintenance.

- ii) Wastewater utilities are required to submit to DWA their O&M plans that are required by the State Water Resources Control Board.

**2) Add provisions to emphasize the Commission's oversight over water quality compliance**

- a) The water quality section was revised to ensure Commission oversight of water safety in conformity with the *Hartwell Corp. v. Superior Court* Decision and the Commission's Rate Case Plan Decision (D.07-05-062.)
- b) Provisions were added to require water utilities to comply with applicable State and Federal water quality regulations;
- c) Notification provisions were added to require water utilities to notify the Commission in the event that the Department or US Environmental Protection Agency (EPA) finds a utility out of compliance with water quality regulations.
- d) The General Intent section was modified to emphasize the Commission's oversight role.

**3) Update water system design and construction standards to current industry standards**

- a) Water system design and construction standards were updated to current industry standards and made consistent with the Department's Waterworks Standards, CCR Title 22, and other applicable standards.

**4) Add new customer service quality standards based on Vermont Gas System's (VGS) Performance and Reporting Plan**

- a) A new section has been added to incorporate customer service performance standards and reporting requirements for water and wastewater service utilities which were developed through the WG process using the VGS Performance and Reporting

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Plan. This new section sets the reporting requirements for customer service performance for telephone response, billing, meter reading, and work completion.

- b) The more detailed customer service performance standards are contained in Attachment 2. DWA recommends that these standards be applicable to Class A and B water utilities only because of the technical requirements and resources needed to implement them.
- c) Applicability of the GO 103 customer service standards and reporting requirements for Class C and D water utilities needs to be evaluated.
- d) Requirements for responding to customer and regulatory complaints were also added to the GO.

**5) *Remove GO 103 sections that are duplicative of current tariff provisions***

- a) Duplicate and non-applicable sections were removed from the GO as indicated in section II of this report.
- b) Because the tariff rules now take precedence over GO 103 language, the language in the tariff rules may need to be updated to the same minimum standards as the GO 103 rules.

***Summary of additional recommended changes:***

- 6) GO 103 definitions were updated and made consistent with the Department's Waterworks Standards, CCR Title 22.
- 7) Preemptive Authority language was added to the GO to express the Commission's preemption of local authorities with respect to regulatory authority over water and sewer construction and/or expansion projects of water and wastewater system utilities, consistent with existing preemptive authority for Electric utilities, per Government Code Section 53091.
  - a) The Commission will need to assess whether this preemptive authority can be added to the GO without providing notice and

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opportunity for comment to the affected local jurisdictions, or determine the type of notification required.

- 8) The maximum periods that meters can remain in service without being tested were changed back to the original periods based on the WG discussions and current utilities' meter testing and replacement practices.
  - a) The Division of Ratepayer Advocates (DRA) continues to advocate for shorter time periods.
  - b) Language was added that gives water utilities the ability to extend the maximum periods via an advice letter filing.

A more detailed overview of the WGs' proposed changes for each GO section is provided in section II of this report.

***B. Working Group Process***

On February 25, 2008 DWA held a GO 103 workshop which led to the establishment of a working group process for the evaluation of the proposed GO 103 changes (see the attached March 18, 2008 General Order 103 Workshop Report.) Five WGs were created based on specific GO 103 subject areas and sections specified below in Table 1. A WG lead was assigned to each WG to help coordinate and facilitate the WG meetings. Table 1 also includes the WG meeting dates and locations.

**Table 1**  
**Working Group Sections and Meetings**

	<b>WG1</b>	<b>WG2</b>	<b>WG 3</b>	<b>WG4</b>	<b>WG 5</b>
<b>Assigned GO 103 Sections</b>	<p><b>Section I--</b> Definitions only</p> <p><b>Section III--</b> Standards of Design and Construction</p> <p><b>Section II--</b> Standards of Service:</p>	<p><b>Section I--</b> Definitions only</p> <p><b>Section II --</b> Standards of Service: Water Quality, Testing of Water</p>	<p><b>Section I--</b> Definitions only</p> <p><b>Section VII—</b> Operation and Maintenance</p> <p><b>Section IV –</b> Measurement of Service</p>	<p><b>Section I –</b> (All)</p> <p><b>Section V –</b> Rates &amp; Billing</p> <p><b>Section VII—</b> Customer Relations-- Performance Standards</p>	<p>Working Group 5 GO 103 sewer standards</p>

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	Water Supply Requirements and Quantity of Water  <b>Section VI--</b> Fire Protection Standards				
<b>WG meeting dates &amp; locations</b>	March 27 and April 3, 2008 in San Jose, CA	April 4, 2008 in San Jose, CA	April 10, 2008 in Chula Vista, CA	March 25 and April 18, 2008 in Santa Clarita, CA	June 2, 2008 in Pacific Grove, CA. and June 26, 2008 in San Francisco, CA

The following working group guidelines were set and followed by DWA staff and WG leads:

1. The first WG meetings were formally noticed 10-days prior to the meeting. No formal notifications were required for subsequent meetings, but notices of the meetings were made to each WG distribution list.
2. At any time in the WG process, anyone could request to be added to the WG distribution list by contacting the WG leads.
3. At any point in the WG process, the WGs could request additional guidance from the assigned ALJ; these requests were to be coordinated with staff from the DWA. No requests were made from any of the WGs.
4. Additional workshop(s) could be scheduled to address global WG issues that might require input from all of the respondents to the Rulemaking. One additional workshop was held on June 24, 2008 at the Commission's Courtyard Room in San Francisco to review all of the WGs' recommended GO 103 changes and was open to all WG participants.
5. August 15, 2008 was set as the due date for the WGs to submit their final work products.

WG meetings were conducted in southern and northern California as indicated in Table 1 above to accommodate all WGs' participants. Conference call-in numbers were provided for all WG meetings, and when feasible WG meetings were web cast. All WG meetings were well attended and included representation from class A and B water utilities, the DRA and

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The Utility Reform Network (TURN); see attached sign-in sheets for a listing of attendees. The WG process worked well thanks to the cooperation and participation of the water utilities, DRA and TURN.

#### ***C. GO 103 Review Process***

The general approach used by each WG was to review the Commission's proposed GO 103 changes for the specific assigned sections and to revise the GO based on the WG discussions. A GO 103 working draft was created from each WG meeting that included the WG's proposed revisions (redlined) and comments to indicate the areas of concern or disagreement by WG participant(s). The final revised GO 103 draft with all of the WGs' recommended revisions is included as Attachment 1 to this report.

## ***II. Working Groups' Proposed Revisions to General Order 103***

This section of the report provides a summary of the specific WGs' recommended revisions to GO 103 sections, and also includes the areas upon which WG participant(s) could not reach agreement and/or that may need to be addressed by the Commission.

#### ***A. GO 103 Revisions***

##### ***Section I- General***

##### ***1. Intent***

The applicability of the GO 103 was expanded to include wastewater system utilities, a new broader term recommended by the WG participants that includes sewer service systems, recycled water systems, or grey water systems, which are customer services that regulated water and/or sewer utilities are providing or may provide in the future.

##### ***2. Definitions***

All new and updated definitions were reviewed by the WGs, and additional definitions were added.

- a) The following definitions were added or updated -- Wastewater Meter, Customer Service Lateral, Grey Water, Utility Service Lateral, and the

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names of the appropriate regulatory agencies that regulate wastewater service utilities.

- b) Definitions for water systems' components were made more explicit to differentiate between water and wastewater system components (e.g., water meter vs. wastewater meter.)
- c) Definitions were made consistent with the Department's Waterworks Standards, CCR Title 22, and other applicable standards;
- d) Acronyms were added that are used and referenced in the body of the GO.

### **3. Information Available to the Public**

The following requirements were added to the information that a utility needs to maintain and make available to the public:

- a) Low-income ratepayer assistance programs;
- b) Customer rights and obligations;
- c) Information on obtaining emergency assistance; and
- d) How customers can make suggestions or complaints

A requirement was also added to require utilities to have most of this information available to the public in electronic form on the company's website, if a website is maintained.

***DRA recommends requiring class A and B utilities to have a website that contains links to the all of the information required above. DRA's position is that water companies' websites should have the capability to perform most routine customer transactions.***

### **4. Access to Property**

No substantive changes were made to this section.

### **5. Complaints**

The definition of complaint was made more explicit to clearly specify what constitutes a complaint that requires an investigation or action on the part of the utility.

### **6. Accidents/Acts of Terror**

No substantive changes were made to this section.

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**7. Reports and Notifications to the Commission**

New language was added to indicate that reports and notifications to the Commission required by this GO shall be filed with the DWA, or its successor with a copy sent to the DRA, or its successor.

**8. Exemptions and Variances From These Rules**

Language was added to indicate that a utility may request a variance from these rules via a Tier 3 Advice Letter for items of minor importance or temporary in nature (six months or less.)

**9. Preemption of Local Authority**

This is a new section to the GO, which was proposed by the water utilities and supported by DRA and would express the Commission's preemption of local authorities with respect to regulatory authority over water and sewer construction and/or expansion projects of water and wastewater system utilities.

Water utilities requested adding this language to put them on a comparable basis with electric utilities, per Government Code Section 53091.

***We anticipate that the Commission will to address whether such preemptive language can be added to the GO without providing notice and opportunity to comment to the affected local jurisdictions, or determine the procedure that needs to be provided.***

**Section II- Standards of Service**

**1. General**

This section was re-written to simplify the section. Language was added to require wastewater utilities to comply with the State Board, Regional Board, and County Health Department permit requirements and all applicable regulations.

**2. Water Quality and Supply Requirements**

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*A. Water Quality*

The water quality section was revised to document and facilitate Commission oversight of water safety in conformity with the *Hartwell Corp. v. Superior Court* Decision and the Commission's Rate Case Plan Decision (D.07-05-062).

The following requirements were added:

- i. Water utilities are required to comply with applicable State and Federal laws pertaining to water quality and applicable regulations of the Department and US EPA;
- ii. Water utilities are required to notify the Commission when a water utility is found out of compliance by the Department or US EPA or notifies customers of a water quality event;
- iii. Water utilities are required to have samples of their water analyzed by an accredited water laboratory;
- iv. Recycled water must comply with the Department's recycled water requirements;

The water quality expert language was refined in accordance with D.07-05-062. An additional provision was added to give wastewater utilities the authority to disconnect customers that discharge unauthorized waste into a wastewater system.

*B. Quantity of Water*

This section was revised and made consistent with the Department's Waterworks Standards, CCR Title 22.

(1) Source.

GO language was augmented to indicate that water supplied by a utility can be produced from a source or sources described in the utility's Urban Water Management Plan (UWMP) that has been reviewed by the Commission in its most recent General Rate Case (GRC) or in an amendment that the utility has submitted for review to the Commission's DWA.

(2) Operation of Supply System

GO language was revised to require production from groundwater and

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surface water sources to comply with the Department's applicable Waterworks Standards, and in accordance with a UWMP that has been reviewed by the Commission in the utility's most recent GRC.

**(3) Water System Capacity**

The requirements for water system capacity, Maximum Daily Demand (MDD) and Peak Hour Demand (PHD), were revised and made consistent with the Department's Waterworks Standards, CCR Title 22, Section 64554.

Language was added to indicate that if at any time, the system does not have the required capacity, the utility shall request a service connection moratorium until it can demonstrate the source capacity has been increased to meet system requirements.

**(4) Sewer System Capacity**

Language was added to require that once use of a utility sewer system's facilities has reached 80% of design average daily flow, as specified in the permit as issued by the Regional Board, the sewer utility must request a service connection moratorium until it can demonstrate the system capacity has been increased to meet system requirements.

**3. Continuity of Service**

*A. Emergency Interruptions*

No substantive changes were made to this section.

*B. Scheduled Interruption*

No substantive changes were made to this section.

*C. Records of Interruptions*

The required information for the records of interruption was moved to Appendix C of the GO.

*D. Reports to the Commission*

No substantive changes were made to this section.

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**4. Water Supply Requirements**

*A. Measuring Devices*

No changes were made to this section.

*B. Records*

No substantive changes were made to this section.

Note: Respondents need to address influent and effluent flows, and plant discharge fro recycled water.

**Section III- Standards of Design and Construction**

**1. General**

Language was revised to require the design and construction of utility's water or wastewater system(s) to conform to acceptable engineering standards and practices. In addition, systems must be designed and operated to provide reasonably adequate and safe service to its customers in accordance with the requirements of the Department and this General Order.

Section 2, Application for Certificate of Public Convenience and Necessity was deleted because it is not a standard of design and it is covered by other rules and tariffs.

**2. Materials and Specifications**

*A. Qualification*

GO language was revised to require materials used to construct component parts of water system(s) shall be capable of withstanding the internal and external forces to which they may be subjected in service, per applicable AWWA Standards.

Reference to the term "lead free" was updated per the California Health & Safety Code Section 116875.

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Similar language was added to require materials used to construct component parts of wastewater system(s) capable of withstanding the internal and external forces to which they may be subjected in service per applicable standards.

*B. Specifications*

No changes were made to this section.

*C. Newly Developed Materials and Equipment*

No changes were made to this section.

**3. Distribution Systems**

*A. Depth of Mains*

The language in the GO was simplified, but requires all pipe and service lines that are installed using the open cut method to be installed with continuous tracer tape or wire to be detectable in the future.

*B. Layouts of Water Mains*

No substantive changes were made to this section.

***Section C, Minimum Water Main Diameter and Length of Run has been deleted because it was adequately covered under minimum pipe sizes section below and length was no longer applicable.***

*C. Minimum Pipe Sizes*

No changes were made to this section.

*D. Water Main Separations*

The requirements for minimum water main separation were made consistent with the Department's CCR, Title 22, Waterworks Standards, Section 64572.

*E. Water Main Valves*

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The requirements for water valves were revised and made consistent with the Department's Water Works Standards, CCR Title 22, Sections 64577 and 64578.

***Section G, Minimum Water Main Valve Construction Standards was deleted because main valves are covered in the Material Standards for Water Mains section below.***

#### **4. Material Standards for Water Mains**

The requirements for all new water main materials used in the distribution system were revised and made consistent with the Department's Waterworks Standards, CCR Title 22, Section 64570. The requirements were also augmented to require utilities to consider the cost effectiveness of the materials it selects. The AWWA standards table was deleted because it is part of the Waterworks Standards referenced herein.

#### **5. Service Connections Pipe and Fittings**

##### *A. General*

No changes were made to this section.

##### *B. Conditions for Adding Service Connections and Pipes*

No substantive changes were made to this section.

##### *C. Size of Service Line*

No significant changes were made to this requirement. The table in this section that provides a guide for the installation of  $\frac{3}{4}$ -inch and 1-inch service was deleted.

##### *D. Depth of Service Line*

No changes were made to this section.

#### **6. Distribution Reservoirs**

The distribution reservoirs requirements were made consistent with the Department's Waterworks Standards, CCR Title 22, Section 64585. The

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specific language detailing the requirements was deleted and replaced by the Waterworks reference.

***Subsurface Distribution Reservoirs section was deleted because this subcategory of distribution reservoirs is covered in the Distribution Reservoirs section above.***

**7. Recycled Water and Reservoirs**

The GO requirement was revised to require the Department's approval before a utility can use a reservoir that is directly augmented with recycled water as a source of supply.

**8. Reliability for Water Facilities**

The required reliability standards for the design and construction of all new and existing surface water treatment plants were made consistent with those of the Department's Waterworks Standards, CCR Title 22, Section 64659.

The new reliability requirement was added to require all critical equipment not addressed by Section 64659 above shall have adequate redundancy and reliability, which can include backup power/generation.

**9. Sewer Systems**

*A. Mains and Submains*

No changes were made to this section.

*B. Service Laterals*

The minimum size requirement for service lateral was changed from 6 to 4 inches based on the input received from the utility experts/engineers.

The depth requirement was deleted.

A requirement to have the utility's service laterals maintained at 2% minimum and 4% maximum slope was added.

**Section IV- Measurement of Service**

**1. Method of Measuring Service**

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*A. Metering*

Language was added to require all water provided by water utilities to be metered in accordance with PU Code Section 781 which prohibits mandatory metering, absent of a cost effectiveness finding or that conservation will be achieved.

*B. Registration of Meter*

No substantive changes were made to this section.

*C. Irrigation Meters*

No changes were made to this section.

*D. Meter Readings Report to the Commission*

No substantive changes were made to this section.

**2. Meter Test Facilities and Equipment**

*A. Test Facilities*

No substantive changes were made to this section.

*B. Shop Equipment*

The specific reference to the applicable AWWA M6 standard for the accuracy of the test equipment and test procedures was added.

*C. Test Measurement Standards*

No substantive changes were made to this section.

**3. Accuracy Requirements of Water Meters**

*A. General*

No changes were made to this section.

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*B. Test Flows*

Reference to AWWA M6 standard was made explicit and the table associate with this standard was deleted.

Cautionary language was added for meter bench testing for small meters (5/8 x 3/4-inch through 2-inch), a multi-jet meter and a positive displacement meter, to ensure that they are not to be tested in-line.

The tests flows table for new, rebuilt and repaired multi-jet type cold water meters was deleted because the tests flows are included in the specified AWWA standard.

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*C. Determination of Accuracy*

Meter testing accuracy requirement language was revised to include the applicable M6 AWWA standard.

*D. Sealing of Meter*

No changes were made to this section.

*E. Record of Test*

No substantive changes were made to this section.

**4. Initial Tests of Meters**

Meter storage requirement language was deleted because it is no longer applicable.

**5. Repaired or Tested Meters**

No changes were made to this section.

**6. Periodic Tests of Water Meters**

*A. General*

Language was added that would allow utilities to request to extend the maximum period that a meter can remain in service without retesting via an Advice Letter filing and based on economic factors and meter accuracy.

The maximum periods that a meter can remain in service without being tested were changed back to the original periods based on the WG discussions.

***DRA proposed reducing the maximum period that a meter could remain in service without retesting the meters. DRA proposed 15 years for meters less than 1-inch, 13 years for 1-inch meters, and 8 years for meters larger than 1-inch.***

***Water utilities support the original maximum periods based on***

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***current operating practices, manufacturers' warranties, and associated cost impacts on customers. Water utilities indicated that each utility has developed its own meter testing and replacement plan based on a number of economic factors and criteria listed above. In addition, the general practice by water utilities is to replace the smaller than 1-inch meters and not test smaller size meters because it is not cost effective to do so.***

***DWA staff does not support reducing the current maximum periods without an economic analysis or evidence to indicate that the current periods are inadequate. In addition, the current requirement does not prohibit the Commission from requiring testing of a random sample of meters at different frequencies, if there is evidence of high levels of meter inaccuracy, or high percentages of accounted water use.***

***B. Frequency of periodic tests***

No changes were made to this section.

***C. Report of Periodic Tests of Meters***

No changes were made to this section.

**7. Meter Records**

***A. Contents and Retention of Meter Records***

Language was added to require utilities to retain a written record of meters that are changed out.

Language was also added to require utilities to maintain meter records for the useful life of the meter.

**V. Rates and Billing**

**1. Filing of Tariffs**

No changes were made to this section.

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**2. Information on Bills**

No changes were made to this section.

**3. Sewer Service**

Additional language was added for billing requirements for sewer service.

**VI. Fire Protection Standards**

**1. Design Requirements**

*A. Standards of Local Fire and Protection Agency's Govern*

No changes were made to this section.

*B. Application of the Utility's Main Extension Rule*

No significant changes were made to this section.

**2. Initial Construction, Extension, or Modification**

*A. Fire Flow Table*

The fire flow language was revised to require water facilities that are constructed, extended, or modified to be designed with the capacity to provide a minimum of two hours, at a minimum of 20 psi, the fire flow required by the California Fire Code 2007, Appendix B.

Section B, Grandfathering Section was deleted because it was duplicative.

**3. Replacement of Mains**

No substantive changes were made to this section.

***Original Section 4, Flow Tests Section was deleted because the flow test requirements are included in 2 (A) above.***

**4. Fire Hydrants**

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No substantive changes were made to this section.

**5. Fire Hydrant Service Agreement**

No substantive changes were made to this section.

**VII. Operation and Maintenance**

**1. Operation and Maintenance (O&M) Procedures and Plans**

*A. Submission of O&M Procedures for Water Utilities to the Commission*

The language in this section was revised. The new language requires water utilities to prepare and submit to DWA O&M procedures instead of O&M plans. Submission of an O&M plan by a water utility is required when the utility prepares an O&M plan for the Department due to deficiencies in a utility's system(s) operation or maintenance. This compromise was reached through the WG process after water utilities indicated that the preparation of O&M plans for all of their water systems would be too burdensome and costly.

Additional language was also added to provide confidentiality protection for the O&M procedures filings, per Pub. Util. Code 583.

Note: the Commission may need to set a timeline for the submission of O&M procedures.

*B. Contents of O&M Procedures for Water Utilities*

The following O&M procedures were added or revised:

1. The operations and maintenance schedule for each purchased water connection procedure was added.
2. The training protocols for use by employees for interacting with customers;
3. The schedule and procedures for either testing backflow prevention assemblies or notifying customers of their obligation to test backflow prevention assemblies;
4. The schedule and procedures for routine maintenance of water main valves, combination air vacuum release valves, fire hydrants,

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and valves; and

5. The qualifications and training of operating personnel including water treatment and cross connection certification;

***Section C, Updates Section-- the required updates for O&M Plans and Procedures and Emergency/Disaster Response Plan have been added to Section VII(4)B.***

#### *C. Submission of O&M Plans for Water Utilities to the Commission*

This requirement was revised to require water utilities to submit O&M plans to the Commission's DWA, if the Department requires a water utility to prepare an O&M plan due to a deficiency in their system operation or maintenance.

#### *D. Submission of O&M Plans for Wastewater System Utilities to the Commission*

New language was added that requires wastewater system utilities to submit to the Commission's DWA, subject to the confidentiality provisions, a copy of the O&M Plan required by the State Water Board General Order 0003-2006.

### **2. Asset management requirements**

Asset management requirements were moved to this section of the GO and a sanitary sewer management plan requirement was added for sewer systems.

DRA recommends adding more specificity to this section, adding language to require utilities to report to the Commission on their plans to retrofit existing facilities, use of cathodic protection programs, and other efforts to minimize corrosion and extend service life. DWA supports this addition and has incorporated it into the GO.

### **3. Emergency/Disaster Response Plan**

The Emergency/Disaster Response Plan requirement was made consistent with the Department's requirements.

Language was added to require sewer system utilities to have an Emergency Response Plan pursuant to the State Board GO-0003, 2006.

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**4. Records and Reports**

Record retention Appendix was changed from B to C.

*A. System Plans, Maps, Drawings and Other Records*

No substantive changes were made to this section. The minimum records language was augmented to include the applicable components for wastewater systems.

***Results of Laboratory Analysis Section was moved to the Records Retention Appendix C.***

*B. Required Updates*

This requirement was modified to require updates of the records and plans in VII, (1), (3), and (4) above when significant changes occur.

*C. Underground Damage Prevention*

Language was added to require utilities to comply with all California regulations for underground damage prevention.

***Flushing the System Section was deleted.***

**5. Water Treatment and Water Distribution Operators**

*A. General*

The water treatment and water distribution certifications requirements were updated and made consistent with those of the Department.

*B. Treatment Facility Operator Certification*

Language was revised to require all treatment facility operators to be certified by the Department for the functions they perform.

*C. Distribution System Operator Certification*

No changes were made to this section.

*D. Cross-Connection Operator Certification*

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New language was added to require that all cross-connection operators be certified by the AWWA, or equivalent organization.

*E. Wastewater Treatment and Wastewater Distribution Operators*

Certification requirements were added for wastewater treatment and wastewater distribution operators.

**6. Pressures**

*A. Variations in Pressure*

No substantive changes were made to this section.

*B. New Systems*

The required minimum operating pressure for new systems was revised from not less than 40 psi, at all times, to not less than 40 psi during Peak Hour Demand (PHD.)

Language was added to allow utilities to request a waiver, if a utility cannot meet this pressure requirement, as a result of cost and/or system limitations.

*C. Changes to existing distribution systems*

The operating pressure requirement for changes to existing distribution systems was changed from not less than 30 psi to 40 psi. The required pressure is to be maintained at all service connections during PHD and not less than 20 psi based on user average day demand plus local fire flow.

Language was also added to allow utilities to request a waiver, if a utility cannot meet this pressure requirement due to cost and/or system limitations.

*D. Waivers*

No substantive changes were made to this section.

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***Hydraulic Analysis of the Transmission and Distribution System was deleted.***

***E. Delineation of Minimum Normal Operating Pressures***

No changes were made to this section.

***F. Pressure Recorders***

No substantive changes were made to this section.

***G. Pressure Surveys***

No substantive changes were made to this section.

**VIII. Customer Service and Reporting Standards for Water and Wastewater Service Utilities**

- a) A new section has been added to incorporate customer service performance standards and reporting requirements for water and wastewater service utilities which were developed through the WG process using the VGS Performance and Reporting Plan. This new section sets the reporting requirements for customer service performance for telephone response, billing, meter reading, and work completion.
- b) The more detailed customer service performance standards are contained in Attachment 2. DWA recommends that these performance standards be applicable to Class A and B water utilities only because of the technical and resources requirements needed to implement them.
- c) Applicability of the GO 103 customer service standards and reporting requirements for Class C and D water utilities need to be evaluated.
- d) Requirements for responding to customer and regulatory complaints were also added to the GO.

See Attachment 2 for the specific customer service and reporting standards.

DRA notes that Reporting Standards, as written in Section II.B of

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Attachment 2 do not have any type of penalty or consequence tied to the standard if the utility fails to meet any of the performance standards.

DRA recommends adding a provision to the Work Completion Performance Standards, Section II.G.1 in Attachment 2, to require utilities to pay customers if they do not keep a scheduled appointment.

***IV. Conclusion***

The WGs' proposed changes to GO 103 contained in Attachment 1 of this WG Report are the result of an extensive WG evaluation process that took place from March through June 2008. This GO 103 evaluation process involved the participation of subject matter experts and representatives from Class A and B water utilities, DRA, and TURN. The WGs' recommended changes are the result of extensive discussions and compromises reached through the WG process. The recommended changes are aligned with the Commission's outlined objectives in R.07-12-015. DWA staff therefore recommends adoption of the WGs' GO 103 proposed changes and recommendations contained in this report.

**(END OF APPENDIX A)**

**ATTACHMENT 1**

**PROPOSED GENERAL ORDER 103**

**RULES GOVERNING WATER SERVICE, INCLUDING MINIMUM  
STANDARDS FOR OPERATION, MAINTENANCE, DESIGN AND  
CONSTRUCTION**

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## **I. General**

### **1. Intent**

#### **A. Purpose**

The purpose of these rules is to establish minimum standards to be *followed* in the design, construction, *location, maintenance* and operation of *the facilities of water and wastewater system* utilities operating under the jurisdiction of the Commission, *subject to active oversight and enforcement by the Commission.*

#### **B. Limits of Order**

*These rules do not supersede the effective tariff rules of the Water and Wastewater System Utilities.*

#### **C. Expiration of Economic Life**

Nothing contained *in these* rules shall be construed to require the replacement or abandonment of facilities in use at the time of adoption of these rules, *prior to the expiration of their economic life*, unless the Commission orders the abandonment or replacement of particular facilities found to be inadequate for the *provision* of proper public Utility service.

#### **D. Absence of Civil Liability**

These rules are adopted by the Commission to establish minimum standards in the design, construction, maintenance and operation of Water and *Wastewater System* Utilities operating under the jurisdiction of the Commission. Such rules shall not impose upon these utilities, and these utilities shall not be subject to, any civil liability for damages, if liability would not exist had these rules not been adopted. The Utility shall not be subject to civil liability for actions taken to comply with the requirements established in this General Order.

#### **E. Applicability**

*These rules are designed primarily for water utilities supplying potable water, but apply insofar as they may be appropriate in part, to utility*

*systems supplying water not intended or claimed to be potable from pipes, ditches, canals or other conduits and to wastewater system utilities. The sections of these rules applicable to utility systems supplying such non-potable water are set forth in Appendix A and sewer systems in Appendix B.*

## **2. Definitions**

- A. Commission. The Public Utilities Commission of the State of California.
- B. Utility. Any Commission-regulated water or sewer system utility.
- C. Customer. Any person, firm, association, corporation or governmental agency supplied or entitled to be supplied with water or sewer service for compensation by a Utility.
- D. Corporation. A corporation, a company, an association, or a joint stock association.
- E. *Department. The Division of Drinking Water and Environmental Management of the Department of Public Health of the state of California, or its successor; or the County primacy agency.*
- F. *State Board. State Water Resources Control Board*
- G. *Regional Board. Regional Water Quality Control Board that has jurisdiction over the specific wastewater or reclamation facilities.*
- H. *County Health Department. County agency governing environmental health for the county associated with maintaining and governing surface and groundwater quality.*
- I. *Water Meter. Any device used for the purpose of measuring the quantity of water delivered.*
- J. *Wastewater Meter. Any device used for the purpose of measuring the quantity and or quality of reclaimed water or wastewater produced, received or delivered.*
- K. *Person. An individual or a partnership.*

- L. *Sewer system. All real estate, fixtures, and personal property owned, controlled, operated, or managed in connection with or to facilitate sewage collection, treatment, or disposition for sanitary or drainage purposes. Sewer system(s) include any and all trunk lines and connecting sewers, interceptors, outfall lines and sanitary sewage treatment or disposal plants or works, and any and all drains, conduits, and outlets for surface or storm waters, and any and all other works, property or structures necessary or convenient for the collection or disposal of sewage, industrial waste, or surface or storm waters.*
- M. *Wastewater system. Any sewer service system or recycled water system subject to the Commission's regulation. Wastewater system does not include the service lateral from the premise to a point of connection made to the utility system.*
- N. *Wastewater system utility. Any corporation or person owning, controlling, operating, or managing any wastewater system subject to the Commission's regulation. A sewer system utility as defined in PU Code 230.5 is a wastewater utility.*
- O. *Recycled water system. Water recycling, also known as reclamation or reuse, is an umbrella term encompassing the process of treating wastewater, storing, distributing, and using the recycled water. Recycled water is defined in the California Water Code to mean "water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur."*
- P. *Customer Service Lateral. All the pipe, tubing, valves and fittings connecting a customer sewer system to the point where the lateral enters the public right of way including all pipe, fittings and fittings and valves necessary to make the connection.*
- Q. *Utility Service Lateral. All the pipe, tubing, valves and fittings connecting a customer service lateral to the sewer main.*
- R. *Service Line. All the pipe, tubing, valves and fittings connecting a water main to an individual water meter or service connection, including all pipe, fittings and fittings and valves necessary to make the connection.*
- S. *Water Service Connection. The point of connection from a service line or*

ditch owned by the Utility or from the outlet connection of a utility water meter assembly to the customer's piping or ditch, generally with a meter or meter assembly.

- T. *Source Capacity. The total amount of water supply available, expressed as a flow, from all active sources permitted for use by the water system, including approved surface water, groundwater, and purchased water (Waterworks Standards, CCR Title 22, Section 64551.40.)*
- U. *Storage Capacity. The total volume of water supply available from used and useful storage tanks or reservoirs approved by the Department as an active part of the Utility's water system.*
- V. *Tariff Rule. A Rule in the tariffs that has been approved by the Commission.*
- W. *Utility. A water or wastewater system utility.*
- X. **Water Main.** Any pipeline, except for user service lines, within the distribution system.
- Y. *Distribution System. All physical parts of the water system, including, but not limited to pipes, valves, pumping stations, storage tanks or reservoirs, and service lines, that are located between the water treatment plant, or the source if there is no treatment, and the consumer's service connection.*
- Z. *Water System. The interconnected reservoirs, pipes, sources of supply, real estate, and facilities used to provide water service to a particular set of customers.*
- AA. *Water Treatment Plant. A group or assemblage of structures, equipment, and processes that treat or condition the water supply of a public water system for the purpose of meeting drinking water standards, consistent with the definition of Water Treatment Facility in the Department's, CCR, Title 22, Chapter 13 (Operator Certification)*
- AB. **Water Utility.** Any corporation or person owning, *controlling*, operating or managing any water system subject to the Commission's regulation.
- AC. **Waterworks Standards.** *Regulations adopted by the Department that take cognizance of the latest available "Standards of Minimum Requirements for Safe Practice in the Production and Delivery of Water for Domestic*

*Use” adopted by the California section of the American Water Works Association (Section 116275 of the Health and Safety Code.) The Waterworks Standards may be found in Title 22, Division 4, Chapter 16, of the California Code of Regulations.*

- AD. As used in this order, "person" and "corporation" include the lessees, trustees, receivers or trustees appointed by any court whatsoever, of the person or corporation.
- AE. Bill: *An invoice for water or sewer service including final invoices and invoices for maintenance or repair service.*
- AF. *Normal Business Hours: 8 a.m. to 5 p.m., Monday through Friday, excluding Utility holidays, unless otherwise posted at the utility’s office.*
- AG. *Pressure Zone. Sections of the water system that are segregated by a controlled change in the hydraulic grade line.*
- AH. *Peak Hour Demand. The actual, estimated or projected amount of water utilized by consumers during the highest hour of use during the maximum day, excluding fire flow as defined in Waterworks Standards, CCR Title 22, Section 64551.35.*
- AI. *Maximum Day Demand. The actual, estimated or projected amount of water utilized by consumers during the highest day of use, midnight to midnight, excluding fire flow as defined in Waterworks Standards, CCR Title 22, Section 64551.30.*

3. *Abbreviations and Acronyms:*

- A. *AWWA. American Water Works Association.*
- B. *WEF. Water Environment Federation.*
- C. *CCR. California Code of Regulations.*
- D. *Department. Department of Public Health of the State of California.*
- E. *MDD. Maximum Day Demand.*

- F. PHD. Peak Hour Demand.*
- G. BOD. Biochemical Oxygen Demand.*
- H. TSS. Total Suspended Solids.*
- I. TDS. Total Dissolved Solids.*
- J. PDC. Peak Daily Capacity.*
- K. MGD. Million Gallons per Day.*
- L. mg/L. milligrams per liter.*
- M. psi. Pressure measurement of “pounds per square inch” as registered on a gauge.*
- N. US EPA. United States Environmental Protection Agency.*
- O. UWMP. Urban Water Management Plan.*

#### **4. Information Available to Public**

The Utility shall maintain and make available for public inspection at one or more of the Utility’s commercial offices, in structure and languages to properly inform the customer, information regarding the service rendered, including the following:

- A. A description in writing of the Utility services provided.*
- B. Copies of all active Tariffs including rates, general rules of the Utility, service area maps and forms of contracts and applications applicable to the territory served from that office.*
- C. Information about the Utility’s method of reading meters.*
- D. Bill Analysis. A statement of the past readings of the meters serving a customer’s own premises for a period of two years.*
- E. Consumer Confidence Report. Each Utility operating a potable water*

system must annually mail or deliver a copy of the Consumer Confidence Report to each customer.

- F. Conservation programs and opportunities;*
- G. Low-income ratepayer assistance programs;*
- H. Customer rights and obligations;*
- I. Information on obtaining emergency assistance; and*
- J. How customers can make suggestions or complaints.*

*This information, except for items (B), (D), and (E) above shall be made available in language(s), other than English, that are predominantly spoken in each utility's service territory. In addition, this information, except for item (D) above, shall be available in electronic form on the company's website, if a website is maintained.*

## **5. Access to Property**

### ***A. When***

The Utility shall at all reasonable hours have *safe* access to meters, service connections, *customer service laterals* and any *utility-owned* property located on *the* customer's premises for the purposes of installation, maintenance, operation, or removal.

**B. Secure Access**

*The Utility may request the customer to secure any animals to ensure the safety of the Utility's representative or the Utility may enlist the aid of appropriate agencies, if required, to ensure safe access, particularly when animals on the customer's premises prevent access in times of an emergency.*

**C. Proper Identification**

(1) *Any Utility representative whose duties require entering the customer's premises shall wear a distinguishing uniform or other insignia, identifying the utility representative as an employee of the Utility, or carry other identification such as a badge to verify employment by the Utility, to be shown by the utility representative upon request.*

(2) *The Utility shall inform the customer in such a manner that the Utility can prove the customer was aware of impending access to utility-owned property, except in events associated with the safety of the water supply. This requirement includes language barriers or issues covered by the Americans with Disabilities Act.*

**6. Accidents/Acts of Terror**

- A. The Utility shall cooperate with the Commission to promote a reduction in hazards within the industry and to the public.
- B. The Utility shall keep a record of any accident endangering the public in general, its employees, or disrupting the facilities for supplying water *or sewer service* to the public which may have caused substantial property damage, personal injury or death. This information shall be available for inspection by the Commission for the period prescribed by the California Code of Civil Procedure, or as prescribed by the Federal Department of Homeland Security, *or for five years, whichever is greater*. The Utility shall fully cooperate with the Commission in the event of an investigation by the Commission staff.

**7. Reports and Notifications to the Commission**

- A. *The Utility shall furnish to the Commission staff, at such times and in such form as may require, results or summaries of any tests required by these rules and any information concerning the Utility's facilities or operations which the Commission may request for assessing the practices of the Utility.*
- B. *Reports and notifications to the Commission required by this General Order shall be filed with the Division of Water and Audits, or its successor, with a copy sent to the Division of Ratepayer Advocates, or its successor.*

## **8. Exemptions or Variances from These Rules**

- A. *In those cases where the application of any of the rules in this General Order would result in unreasonable and undue hardship or expense to the Utility, it may request specific relief by filing a formal application in accordance with the Commission's Rules of Practice and Procedure, except that where the relief requested is of minor importance or temporary in nature (six months or less), the Utility may file a request and showing of necessity for relief by a Tier 3 Advice Letter.*
- B. *Any Utility that proposes an exemption or variance from this General Order must explain to the Commission any effects the proposed exemption or variance would have on public health risks, service quality, or rates and must bear the burden of justifying any adverse effect.*

## **9. Preemption of Local Authority**

*Local agencies acting pursuant to local authority are preempted from regulating water production, storage, treatment, transmission, distribution, or other facilities including the location of such facilities constructed or installed by water or sewer service utilities subject to the Commission's jurisdiction. However, in locating such projects, the public utility shall consult with local agencies regarding land use matters. In instances where the public utility and a local agency are unable to resolve their differences, the Commission shall set a hearing no later than 30 days after the Utility or local agency has notified the Commission of the*

*inability to reach agreement on land use matters.*

## **II. Standards of Service**

### **1. General**

- A. Subject to the Commission's oversight, each Utility shall operate its system so as to deliver reliable, high quality service to its customers at reasonable cost.*
- B. Each Water Utility shall ensure that it complies with the Department's permit requirements and all applicable drinking water regulations.*
- C. Each Wastewater Utility shall ensure that it complies with the State Board, Regional Board, and County Health Department permit requirements and all applicable regulations.*

### **2. Water Quality and Supply Requirements.**

#### **A. Quality of Water**

- (1) General. Any Utility serving water for human consumption shall provide water that is not harmful or dangerous to health and, insofar as practicable, free from objectionable odors, taste, color and turbidity.
- (2) *The Utility shall comply with applicable state and federal laws pertaining to water quality, and with related regulations of the Department and US EPA.*
- (3) *If the Department or US EPA finds a Utility to be out of compliance with the water quality regulations specified in section II.2.A(2), the Utility shall promptly notify the Commission, by telephone or e-mail, with confirmation in writing. Any report submitted to the Department in such circumstances shall be submitted concurrently to the Commission.*
- (4) *If a Utility notifies its customers of a water quality event, it shall promptly notify the Commission, , by telephone or e-mail, with confirmation in writing.*

- (5) *Each Utility shall have representative samples of its water analyzed by a Department accredited laboratory, as required pursuant to California Health and Safety Code Sections 116390 and 100825-100920, at intervals specified by the Department.*
- (6) *It is not intended that any rule contained in this General Order shall supersede or conflict with the regulations of the Department or US EPA. Compliance by a Utility with the regulations of the Department or US EPA on a particular subject matter shall constitute compliance with such of these rules as relate to the same subject matter except as otherwise ordered by the Commission.*
- (7) *In accordance with the Commission's Decision 07-05-062 or subsequent order, the Presiding Officer shall appoint a water quality expert to assist the Commission in making specific findings and recommendations concerning the Class A Water Utilities' water quality compliance, unless good cause exists to forego such appointment.*
- (8) *Appointment of a water expert may not be necessary if the Utility has met all sampling and testing requirements, and has no test results on facilities in active service that exceed the maximum contaminant levels (MCLs) established by the Department, and no party raises concerns of merit.*
- (9) *Recycled water shall meet the Department's recycled water requirements of Article 4 Chapter 7 Part 12 of Division 104 of the Health and Safety Code.*
- (10) *Any unauthorized waste discharge (as defined in the Utility's tariff rules) into a wastewater system shall be grounds for disconnection at the customer service lateral from the Utility system.*

**B. Quantity of Water**

- (1) Source. Water supplied by any Utility shall be:
  - (a) *Obtained from a permitted source;*
  - (b) *Obtained from a source or sources reasonably adequate to provide a reliable supply of water; or*

- (c) *Produced from a source or sources described in the Utility's Urban Water Management Plan (UWMP) that has been reviewed by the Commission in its most recent general rate case or in an amendment to such UWMP that the Utility has submitted by advice letter for review by the Division of Water and Audits or its successor.*

(2) Operation of Supply System

- (a) The water supply system, including wells, reservoirs, pumping equipment, treatment and filtration works, mains, meters and service pipes shall be free from sanitary defects.
- (b) No physical connection between the distribution system of a public potable water supply and that of any other water supply shall be permitted except in compliance with the Regulations Relating to Cross Connections of the Department contained in the CCR, Title 17, Division 1, Chapter 5, Subchapter 1, Group 4, Articles 1 and 2, or its successor.
- (c) *Production from groundwater and surface water sources shall comply with relevant Waterworks Standards and, in the case of a Utility that has submitted a UWMP for Commission review, shall be conducted in accordance with a UWMP that has been reviewed by the Commission in the Utility's most recent general rate case or in accordance with an amendment to such UWMP that the Utility has submitted by advice letter for review by the Division of Water and Audits or its successor.*

(3) Water System Capacity

- (a) *A system's facilities shall have the capacity to meet the source capacity requirements as defined in the Waterworks Standards, CCR Title 22, Section 64554, or its successor. If, at any time, the system does not have this capacity, the Utility shall request a service connection moratorium until such time as it can demonstrate the source capacity has been increased to meet system requirements.*
- (b) *If a system provides fire protection service, new portions of the system shall have supply and storage facilities that are designed to meet MDD plus the required fire flow at the time of design.*

*(c) The system's MDD and PHD shall be determined in accordance with Waterworks Standards, CCR Title 22, Section 64554, or its successor.*

*See Section VI of this General Order for fire flow guidelines.*

*(4) Sewer System Capacity*

*Once use of a utility sewer system's facilities has reached 80 % of design average daily flow as specified in the permit as issued by the Regional Board, the Utility shall request a service connection moratorium until such time as it can demonstrate the system capacity has been increased to meet system requirements.*

**3. Continuity of Service**

**A. Emergency Interruptions**

(1) Each Utility shall make all reasonable efforts to prevent interruptions to service and when such interruptions occur shall reestablish service with the shortest possible delay consistent with the safety of its customers, its employees, and the general public.

(2) If an emergency interruption of service affects the service to any public fire protection device, *within 120 minutes of discovery of the interruption by the Utility*, the Utility shall notify the Fire Chief or other public official responsible for fire protection of such interruption and of subsequent restoration of normal service.

**B. Scheduled Interruptions**

(1) Whenever any Utility finds it necessary to schedule an interruption to its service, it *shall* notify all customers to be affected by the interruption, stating the approximate time and anticipated duration of the interruption. Scheduled interruptions shall be made at such hours as will provide least inconvenience to the customers consistent with reasonable operations.

(2) Where public fire protection is provided by the mains affected by the interruptions, *the Utility shall report* to the Fire Chief or other officials responsible for fire protection *when the interruption is scheduled*, the approximate time, and anticipated duration. In addition, the Fire Chief or

other official responsible for fire protection shall be notified *within 60 minutes*-upon restoration of service.

**C. Records of Interruptions**

Each Utility shall keep a complete record of all interruptions, both emergency and scheduled, when more than 10 service connections are interrupted. *These records of interruptions shall include the information listed in Appendix C and shall be kept with the Utility's records in accordance with the retention schedule listed in Appendix C.*

**D. Reports to Commission**

All emergency interruptions involving an entire system, an entire separately operated system of a multi-system Utility or a major portion of an entire or separately operated system shall be reported to the Commission by the Utility as soon as possible after occurrence by telephone or *e-mail* stating the cause, date, time, estimated duration, location, approximate number of customers affected and remedial steps being taken to restore service.

**4. Water Supply Measurement**

**A. Measuring Devices**

*Measuring devices known as source flow meters are required for each water system source, except at any inactive source. In accordance with Waterworks Standards, CCR Title 22, Section 64561, the Utility shall, for each water system:*

- (1) Install a flow meter at a location between each water source and the entry point to the distribution system;*
- (2) Meter the quantity of water flow from each source to determine total production; and*
- (3) Each month, determine and record the total monthly production from each source.*

**B. Records**

*Annual totals by sources shall be recorded and transmitted to the Commission in the Utility's annual reports to the Commission.*

### **III. Standards of Design and Construction**

#### **1. General**

- A. The design and construction of the Utility's water or wastewater system(s) shall conform to acceptable engineering standards and practices. Each system shall be designed and operated so as to provide reasonably adequate and safe service to its customers and shall conform to the requirements of the Department and this General Order.*
- (1) A professional engineer registered in the State of California shall approve all design and construction documents of a Utility's water or wastewater system(s).*
- (2) The design and construction of distribution reservoirs must conform to the requirements of the Department's Waterworks Standards, CCR Title 22, Section 64585 with reference to sanitation and potability of water.*
- (3) All new mains, pumps, tanks, wells and other facilities for handling potable water and repaired mains and other facilities shall be thoroughly disinfected before being connected to the system. The method of disinfection shall be conducted in accordance with Waterworks Standards, CCR Title 22, Sections 64580, 64582, and 64583, or their successors.*
- B. For systems applying for federal funds, under the Drinking Water State Revolving Fund or its successors, applicants must describe the design basis of all new facilities to be constructed using the criteria contained in the Technical, Managerial, and Financial requirements of Waterworks Standards, CCR Title 22, Chapter 12, Sections 63026, 63027, and 63028 or their successors.*

## 2. Materials and Specifications

### A. Qualification

(1) *Materials used to construct component parts of a water system including, but not limited to, conduits, pipes, couplings, caulking materials, protective linings and coatings, services, valves, hydrants, pumps, tanks, backflow devices, and reservoirs, shall be capable of withstanding the internal and external forces to which they may be subjected in service per applicable AWWA Standards.*

(a) *No person shall use any pipe, plumbing fitting or fixture, solder, or flux that is not "lead free" in the installation or repair of any water system, except when necessary for the repair of leaded joints of cast iron pipes.*

*For the purposes of this section, "lead free" means in compliance with California Health & Safety Code Section 116875, as amended by Stats. 2006 ch. 853 or a subsequent enactment.*

(b) *Materials and equipment shall be selected to mitigate corrosion, electrolysis and deterioration.*

(2) *Materials used to construct component parts of wastewater system(s) including, but not limited to, conduits, pipes, couplings, caulking materials, protective linings and coatings, valves, pumps, tanks, backflow devices, and reservoirs, shall be capable of withstanding the internal and external forces to which they may be subjected in service per applicable standards.*

### B. Specification

Materials and equipment shall be specified by a properly qualified person.

### **C. Newly Developed Materials and Equipment**

The Commission does not intend to prevent the use of newly developed materials and equipment that otherwise meet the requirements described above.

## **3. Distribution System**

### **A. Depth of Mains**

- (1) Water mains should be installed below the frost line or be otherwise protected to prevent freezing and shall have no less than 30-inches of cover over the top of the pipe in public streets or alleys except when it is necessary to avoid underground obstructions or rocky or hardpan conditions where such depth is not feasible.
- (2) *All pipe and service lines that are not electrically continuous and installed using the open cut method shall be installed with continuous tracer tape or wire.*

### **B. Layout of Water Mains.**

*Water mains should be laid out only in segmented grids and looped, and should be located within streets, where practical. Dead-end water mains shall be installed only if:*

- (1) *Looping or gridding is impractical due to topography, geology, pressure zone boundaries, unavailability of easements or locations of users; or*
- (2) *The main is to be extended in the near future and the planned extension will eliminate the dead-end conditions.*

### **C. Minimum Pipe Sizes**

- (1) The distribution system shall be of adequate size, and designed in conjunction with related facilities to maintain the minimum pressures requirements of *this General Order*.

- (2) In no event shall the minimum pipe size for new mains be less than six inches in diameter when used in conjunction with a fire protection system. Otherwise, the minimum pipe size for new mains shall be *no* less than four inches in diameter.

**D. Water Main Separations**

*The minimum separation distances shall be as set forth in the Department's Waterworks Standards, CCR Title 22, Section 64572, or its successor.*

**E. Water Main Valves**

- (1) *Sufficient valves shall be provided on water mains in accordance with Department's Waterworks Standards, CCR Title 22, Sections 64577 and 64578, or their successors.*
- (2) *A flushing valve or blowoff is required at the end of each newly installed dead-end water main (Per Section 64575 of the Waterworks Standards.)*

**4. Materials Standards for Water Mains**

*All new water main materials used in the distribution system shall comply with the Department's Waterworks Standards, CCR Title 22, Section 64570, or its successor. The Utility shall consider the cost effectiveness, for the intended application, of the material it selects.*

**5. Service Connections Pipe and Fittings**

**A. General**

- (1) *Service connection pipe and fittings shall be designed for cold water working pressures of not less than 150 psi.*
- (2) *Copper tubing shall be commercial designation of type K or L. Plastic tubing and fittings shall be products tested and certified as suitable for use in potable water piping systems by the National*

*Sanitary Foundation, the Canadian Standards Association Testing Laboratory or another testing agency acceptable to the Department.*

**B. *Conditions for Adding Service Connections and Pipes***

*New service connections may be added to a water distribution system only if the additional connections will not cause system pressures to be reduced below the standards set forth in Section VII.6 of this General Order.*

**C. *Size of Service Line***

The size, design, material and installation of the service line shall conform to the reasonable requirements of the Utility, provided, however, that the minimum size of the pipe shall not be less than ¾-inch nominal size. The Utility may require the customer to provide such data as may be necessary for the Utility to properly size a service larger than ¾-inch nominal size consistent with the requirements of fire flow.

**D. *Depth of Service Line***

Except in unusual conditions all service pipes shall be laid at a depth sufficient to prevent freezing, except where services are not intended for use during freezing weather and are drained prior to such weather, and at a depth of not less than 18 inches except at its termination in connecting with the meter or customer's piping.

**6. *Distribution Reservoirs***

*Distribution reservoirs (as defined in Waterworks Standards, CCR Title 22, Section 64551.10) shall meet the criteria specified in the Department's Waterworks Standards, CCR Title 22, Section 64585.*

**7. *Recycled Water and Reservoirs***

*No Utility may use a reservoir that is directly augmented with recycled water as a source of supply, unless approved by the Department.*

**8. Reliability for Water Facilities**

- A. *Surface Water Treatment Facilities shall meet the reliability standards set forth in the Department's Waterworks Standards, CCR Title 22, Section 64659, or its successor.*
- B. *All other critical equipment not addressed above shall have adequate redundancy and reliability, including fixed or portable backup power, incorporated as determined by the Utility and approved by the Commission to meet the requirements of this General Order.*

**9. Sewer Systems**

**A. Mains and Submains**

- (1) *Sewer mains shall be sized for the ultimate development of the area. They should be designed for an average daily per capita flow of sewage of not less than 100 gallons per day.*
- (2) *The minimum size for mains and submains shall be eight inches in diameter.*
- (3) *Submains shall be designed to carry, when running full, not less than 400 gallons daily per capita contributions of sewage.*
- (4) *New sewer mains shall be installed at least 10 feet horizontally from, and one foot vertically below, any parallel pipeline conveying potable water.*

**B. Utility Service Laterals**

- (1) *Utility service laterals and submain sewers shall be designed to carry, when running full, not less than 400 gallons daily per capita contributions of sewage.*
- (2) *The minimum size for a service lateral shall be 4 inches.*
- (3) *Utility service laterals shall maintain a 2% minimum and 4% maximum slope.*

#### **IV. Measurement of Service**

##### **1. Method of Measuring Service**

###### **A. Metering**

*Consistent with the requirements of Public Utilities Code Section 781, all water provided by a Utility shall be metered, except that the Utility may, after authorization has been obtained from the Commission provide flat rate or estimated service.*

###### **B. Registration of Meter**

All meters used for metered sales excluding sales from irrigation systems or other irrigation sales must have registration devices indicating the volume of water in either cubic feet or United States gallons *or multiples thereof*. Where a constant or multiplier is necessary to convert the meter reading to cubic feet or gallons, the constant must be indicated on the meter or on the meter-reading sheet.

###### **C. Irrigation Meters**

Irrigation service may be provided with meters that measure in acre-feet or miner's inch days. This service may also be rendered on a volume basis by the use of a calibrated orifice such as the miner's inch box, by the use of weirs or otherwise measured as provided in applicable tariff schedules.

**D. *Report on Meter Readings to the Commission***

All utilities that have metered service connections shall read each customer's meter *according to the Utility's tariff schedules. All utilities shall make a summary of quantities used, by classification of service, in the appropriate service territory or rate-making district, and include the summary in the annual report submitted to the Commission.*

**2. Meter Test Facilities and Equipment**

**A. *Test Facilities***

Each Utility furnishing metered water *or sewer* service shall:

- (1) Have the necessary standard facilities, instruments and other equipment for testing its meters in compliance with these rules, *or*
- (2) Arrange to have its meters tested by another entity equipped to test meters in compliance with these rules.

**B. *Shop Equipment***

The meter test shop shall be provided with the necessary equipment to test up through 2-inch *meters* including a quick acting valve for controlling the starting and stopping of the test and a device for regulating the flow of water through the meter under test. The accuracy of the test equipment and test procedures shall be sufficient to enable shop test of the meter type used by the Utility with an error not to exceed the applicable *AWWA standard (M6 or its successor)*.

**C. *Test Measurement Standards***

Measuring devices for test of meters shall consist of calibrated tanks for volumetric measurement, tanks mounted upon scales for gravimetric measurement or standard meters.

- (1) Basic Standards
  - (a) When a volumetric tank is used, it shall be accompanied by a certificate of accuracy acceptable to the Commission from a

County *Department* of Weights and Measures or other acceptable entity.

- (b) When a *gravimetric* standard is used, the scales shall be tested and calibrated at least once every year by such approved laboratory, or County *Office* of Weights and Measures and a record maintained of the results of the test.
- (c) Standard meters may be used for field tests of meter accuracy provided they are tested and calibrated to permit the test of meters within the limits of accuracy required by these rules, either by the Utility with its volumetric or gravimetric standard equipment or by an approved laboratory at least once every 180 days while the standard meter is in use and a record of such tests shall be kept by the Utility for a period of not less than five years.

(2) Basic Standards for Meter Testing

- (a) The minimum requirement for testing meters from 5/8 x 3/4-inch through 2-inch shall include a 10 and a 1 cubic-foot tank for meters registering in cubic feet or a 100- and a 10-gallon tank for meters registering in gallons.

### 3. Accuracy Requirements of Water Meters

#### A. General

All meters used for measuring quantities of water delivered to customers shall be in good mechanical condition, shall be adequate in size and design for the type of service measured and shall be accurate to within generally accepted standards. The standards of accuracy for meters are set forth in paragraphs *B* and *C*, following.

#### B. Test Flows

For determination of minimum test flow and normal test flow limits, the Commission adopts as a guide the appropriate standard specifications of *the applicable AWWA standard (M6 or its successor.)*

*When bench testing, the small meters (5/8 x 3/4-inch through 2-inch) a multi-jet meter and a positive displacement meter should not be tested in-line.*

**C. Determination of Accuracy**

- (1) Meters shall be tested at three or more test flows per the applicable AWWA standard (M6 or its successor):*
- (2) A meter shall not be placed in service unless the meter test meets or exceeds the applicable AWWA standard (M6 or its successor)*

**D. Sealing of Meter**

Upon completion of adjustment and test of any water meter under the provisions of these rules, the Utility shall affix a suitable seal in such a manner that adjustment or registration of the meter cannot be altered without breaking the seal, where applicable.

**E. Record of Test**

- (1) A complete record of all meter tests, including data sufficient to allow verification of test calculations, shall be recorded by the meter tester.*
- (2) Such record shall include: the identifying number of the meter; the type and size of the meter; the constant of the meter; the date and kind of test made; the reading of the meter before making any test and after the test; the test volume; and the error as found at each test.*
- (3) The complete record of test of each meter shall be retained for at least five years.*

**4. Initial Tests of Meters**

Every water meter shall be tested as required by these rules prior to its installation either by the manufacturer, the Utility or a reliable organization equipped for meter testing.

**5. Repaired or Tested Meters**

All water meters removed from service for repair or test in accordance with these rules shall be restored to the prescribed limits of accuracy as required by these rules before being placed back in service.

## 6. Periodic Tests of Water Meters

### A. *Maximum Time Periods for Meters in Service*

- (1) No meter shall be allowed to remain in service without retesting for any more than the number of years indicated in the following tabulation:

<b>Size of Meter</b>	<b>Maximum Period</b>
Smaller than 1 – inch	20 years
1 – inch	15 years
Larger than 1 – inch	10 years

- (2) *Requests to extend the maximum period may be made by advice letter based on relevant economic factors and meter accuracy.*

### B. *Frequency of Periodic Tests*

Nothing in these rules shall be construed to mean that such periodic tests may not be made more frequently than the maximum period specified.

### C. **Report of Periodic Tests of Meters**

Each Utility shall make a summary of all periodic tests of meters made each calendar year as required by these rules and shall submit such summary concurrently with, or as part of, the Utility's Annual Report to the Commission for that year.

## 7. Meter Records

### A. *Contents and Retention of Meter Records*

- (1) Each Utility shall keep records for each meter owned and used by it for any purpose including the identification number, name of manufacturer, serial number, type, size and the dates of installation and removal. These records shall also give condensed information, including dates, concerning all tests.

- (2) *When changing out a meter, the Utility shall retain the written record of the date of the change, meter readings on the day of the change-out and the serial numbers of the old and the new meter. This information will be available to the customer upon request.*
- (3) *Meter records shall be maintained for the useful life of the meter.*

## **V. Rates and Billing**

### **1. Filing of Tariffs**

Each Utility shall file with the Commission its tariff schedules containing all tariff sheets in accordance with the procedure prescribed by the Commission.

### **2. Information on Bills**

Each Utility shall render a bill to each customer for each billing period. All bills must show the time period, price per unit *delivered*, date bill is due, date when any late fee can be applied and the Commission's policy on late fees.

*Bills for metered service must include all the information shown in Appendix D.*

### **3. Sewer Service**

*A. For billing purposes except as determined by the Utility, the customer is always the property owner.*

*B. Each sewer bill must show the time period, date bill is due, date when any late fee can be applied and the Commission's policy on late fees.*

## **VI. Fire Protection Standards**

### **1. Design Requirements**

The flow standards for public fire protection purposes set forth below are those the Commission considers appropriate on an average statewide basis.

**A. *Standards of Local Fire Protection Agencies Govern***

The Commission recognizes that there are widely varying conditions bearing on fire protection throughout the urban, suburban, and rural areas of California. Therefore, the standards prescribed by the local fire protection agency or other prevailing local governmental agency *shall* govern.

**B. *Application of the Utility's Main Extension Rule***

Such local flow standards shall be *followed* whether greater or lesser than those set forth in this chapter. Mains designed for and capable of providing flows in excess of the fire flow requirements referenced in Section VI.2 of this General Order, shall be considered mains providing excess flow for the purpose of the application of the Utility's main extension rule.

**2. Initial Construction, Extension, or Modification**

In the initial construction, extension, or modification of a water system required to serve a new applicant or a change in use, the facilities constructed, extended, or modified shall be designed to be capable of providing, for *a minimum of two hours, at a minimum of 20 psi, the flows specified in California Fire Code 2007, Appendix B, or its successor.*

**3. *Replacement of Mains***

**A. *Changes to Fire Code***

The Utility shall not be responsible for modifying or replacing at its expense an existing main, which is otherwise adequate, to provide increased fire flow.

**B. **Replacement for Other Reasons****

*When a main requires replacement for other reasons, the new main, if used or useful for fire protection purposes, shall be sized to accommodate the governing fire flow standard.*

**4. Fire Hydrants**

Fire hydrants shall be attached to the distribution system at the locations

*and spacing* designated by the agency responsible for their use for fire fighting purposes.

**5. Fire Hydrant Service Agreement**

- A. Charges for furnishing water to entities providing fire protection services to others shall be pursuant to written agreement in accordance with Public Utilities Code Section 2713, or its successor.*
- B. Each water utility shall make all reasonable efforts to form or renew agreements with entities providing fire protection services that are beneficial to the Utility and its customers.*
- C. When such written agreement is entered into between the Utility and the fire protection agency which requires the Utility to be responsible for all or any portion of the capital expenditures or maintenance costs associated with providing fire hydrant service, such expenditures and costs may be included by the Utility in its general plant accounts and operating expenses for ratemaking purposes.*
- D. The Utility may bill the fire protection agency for fire hydrant service charges only under written agreement with the agency that it will pay such charges. Fire hydrant charges made under written agreement will also be included in revenues for ratemaking purposes.*

- E.* In the absence of any written agreement between the Utility and the fire protection agency, the Utility will be responsible for maintaining fire *hydrant* service to the extent of its means. All cost associated with providing this service may be included for ratemaking purposes.
- F.* Fire *hydrant* service agreements between the fire protection agency and the Utility shall be submitted by advice letter in accordance with General Order 96.

## **VII. Operation and Maintenance**

### ***1. Operation and Maintenance (O&M) Procedures and Plans***

#### ***A. O&M Procedures for Water Utilities***

*Each water utility shall have a set of O&M procedures that includes sampling protocols for water testing procedures and describes the normal operating procedures of the Utility and its facilities.*

#### ***B. Contents of O&M Procedures for Water Utilities***

*The O&M Procedures shall include, as applicable:*

- (1) The operations and maintenance schedule for each unit process for each treatment plant;*
- (2) The operations and maintenance schedule for each groundwater source and unit process;*
- (3) The operations and maintenance schedule for each purchased water connection;*
- (4) The schedule and procedure for flushing dead end mains and the distribution system, and the procedures for disposal of the flushed water, including dechlorination;*
- (5) The schedule for routine inspection of reservoirs, and the procedures for cleaning reservoirs;*

- (6) *The schedule and procedures for inspecting, repairing, and replacing water mains;*
- (7) *The plan for responding to emergencies as described in Section VII.3 of this General Order;*
- (8) *The training protocols for use by employees for interacting with customers;*
- (9) *The schedule and procedures for either testing backflow prevention assemblies or notifying customers of their obligation to test backflow prevention assemblies;*
- (10) *The schedule and procedures for routine maintenance of water main valves, combination air vacuum release valves, fire hydrants, and valves;*
- (11) *The schedule and program for maintenance and calibration of source flow meters;*
- (12) *The qualifications and training of operating personnel including water treatment and cross connection certification; and*
- (13) *The program for bio-film control in water mains.*

**C. *Submission of O&M Procedures for Water Utilities to the Commission***

- (1) *Each Water Utility shall have on file a summary of its current O&M procedures, electronically or in hard copy form, with the Division of Water and Audits, or its successor. The submission of these O&M Procedures shall be subject to the protections against unauthorized disclosure as provided by Public Utilities Code Section 583 and the corresponding exclusion from public inspection provided by General Order 66-C, Section 2.2.*
- (2) *When these O&M procedures change substantially and at least every five years, the water utility shall file updated procedures.*
- (3) *The latest O&M procedures shall be available for Commission review.*

**D. *Submission of Department O&M Plans for Water Utilities to the Commission***

*Any water utility that has prepared an O&M Plan for the Department shall submit a copy of such O&M Plan to the Commission. The*

*submission of the O&M Plan shall be subject to the protections against unauthorized disclosure as provided by Public Utilities Code Section 583 and the corresponding exclusion from public inspection provided by General Order 66-C, Section 2.2.*

**E. *Submission of O&M Plans for Wastewater System Utilities to the Commission***

*Each wastewater system utility shall submit to the Commission a copy of the O&M Plan required by the State Water Board General Order 0003-2006 (May 1, 2006, or its successor.) The submission of the O&M Plan shall be subject to the protections against unauthorized disclosure as provided by Public Utilities Code Section 583 and the corresponding exclusion from public inspection provided by General Order 66-C, Section 2.2.*

**2. *Asset management requirements***

- A.** *Due to the water and wastewater industries' long lived infrastructure and high fixed costs, the effective management of the planning, construction, maintenance and operation of assets is a critical component in delivering good customer service and ensuring the ongoing viability of services.*
- B.** *Effective asset management helps achieve or maintain service and other business performance requirements, manage risks, and improve efficiency. To support the asset management system requirements all utilities shall conduct regular reviews of their asset management system, employing either internal or external resources, as appropriate. Utilities shall report to the Commission on any major plans to retrofit existing facilities, use of cathodic protection programs, and other efforts to minimize corrosion and extend service life. The Commission may determine whether additional third-party review of a Utility's asset management plan, as a recoverable cost, is warranted.*
- C.** *Sewer systems shall maintain their sanitary sewer management plan according to the State Board GO-0003, 2006, or its successor.*

**3. *Emergency/Disaster Response Plan***

- A. *Each water utility shall have an Emergency Response Plan pursuant to the Department's requirements, as set by the US EPA Government Code Section 8607.2 or its successor.*
- B. *Each sewer system shall have an Emergency Response Plan pursuant to the State Board GO-0003, 2006, or its successor.*

#### **4. Records and Reports**

*See Appendix C for retention schedules.*

##### **A. System Plans, Maps, Drawings and Other Records**

*All water and wastewater system utilities shall have on file at their principal or local office plans, maps, drawings or other records of all system facilities. The plans, maps, drawings or other records shall be clear and legible. At a minimum these records will include:*

- (1) *Location of all pumping stations, diversion works, water or sewer treatment plants, sources of supply, storage facilities, size, type of material and location of all mains (including recycled) and ditches, including valves and sluice gates, gauges, interconnections with other systems and fire hydrants;*
- (2) *Location, size and material of each service line;*
- (3) *A schematic drawing or map of all pumping stations, water or sewer treatment plants to show the size and location of all major equipment, pipelines, connections, valves and other equipment; and*
- (4) *The date of construction of all plant.*

##### **B. Required Updates**

- (1) *The plans, drawings, maps and other records prepared pursuant to subsection VII.4 shall be updated as significant changes occur, and maintained until replaced or superseded by updated plans or drawings.*
- (2) *The most current plans, drawings, maps, and other records shall be available for Commission review.*

##### **C. Underground Damage Prevention**

*The Utility shall comply with all California regulations on underground damage prevention.*

**5. Water Treatment and Water Distribution Operators**

**A. General**

*The Utility shall ensure that all water treatment and water distribution facilities are operated by personnel appropriately certified by the Department. Water treatment and water distribution certification are governed by Articles 1 through 5 of Title 22, Division 4, Chapter 13, and Article 2 of Title 22, Division 4, Chapter 15 (or current regulations).*

**B. Treatment Facility Operator Certification**

*All treatment facility operators shall be certified by the Department for the functions they perform.*

**C. Distribution System Operator Certification**

- (1) Each classification of distribution system has its own chief and shift operator certification requirements.*
- (2) Certain decisions regarding operational activities such as installation of water mains, repair of broken water mains, flushing of water mains, and disinfection of domestic water wells, must be made by certified distribution operators.*
- (3) A distribution operator may be eligible for an interim, temporary, or restricted certification if she or he meets the established criteria.*

**D. Cross-Connection Operator Certification**

*All cross-connection operators shall be certified by the AWWA, or equivalent organization.*

**E. Wastewater Treatment and Wastewater Distribution Operators**

*The Utility shall ensure that all wastewater treatment and wastewater*

*distribution facilities are operated by personnel appropriately certified by the State Water Resources Control Board, Office of Operator Certification.*

## **6. Pressures**

### **A. Variations in Pressure**

*Each potable water distribution system shall be operated in a manner to assure that the minimum operating pressure at each service connection throughout the distribution system is not less than 40 pounds per square inch nor more than 125 psi, except that during periods of PHD the pressure may not be less than 30 psi and that during periods of hourly minimum demand the pressure may be not more than 150 psi. Subject to the minimum pressure requirements of 40 psi, variations in pressures under normal operation shall not exceed 50% of the average operating pressure. The average operating pressure shall be determined by computing the arithmetical average of at least 24 consecutive hourly pressure readings.*

### **B. New Systems**

*Each new distribution system shall be designed to provide a minimum operating pressure throughout the distribution system of not less than 40 pounds per square inch during PHD. If a Utility cannot meet this requirement as a result of cost and/or system limitation, the Utility must request an exemption in accordance with Section I.8.A of this GO.*

### **C. Changes to Existing Distribution Systems**

*Changes shall be designed to maintain an operating pressure at all service connections of not less than 40 psi during PHD and not less than 20 psi based on user average day demand plus local fire flow. If a Utility cannot meet this requirement as a result of cost and/or system limitation, the Utility must request an exemption in accordance with Section I.8.A of this GO.*

### **D. Exceptions**

*In a public water system supplying users at widely varying elevations, a Water Utility may furnish service to a user that does not comply with the pressure requirements specified above if the user is fully advised of the conditions under which service may be expected and the users agreement is secured in writing. The limited nature of the service shall also be recorded as a deed restriction on the property. The properties receiving service at other than specified operating pressures shall be identified on the Utility's service area map.*

**E. Pressure Recorders**

Each Utility shall *maintain* one or more pressure recorders for each separately operated system for the purpose of making pressure surveys as required by these rules. These recorders shall be able to record the pressure experienced on such a system and shall be able to record a continuous 24-hour test. Each Utility serving 1000 or more customers in a separately operated system or 1000 or more customers in any separately operated system of a multi-system Utility shall maintain one or more of these pressure recorders in service at some representative points, *as determined by the Utility.*

**F. Pressure Surveys**

- (1) At regular intervals, but not less than once each year, each Utility shall make a survey of pressures in its distribution system of sufficient magnitude to indicate the pressures maintained at representative points on its system. Such surveys should be made at or near the period of *PHD and MDD*. The pressure records for these surveys shall show the date and time of beginning and end of the test and the location at which the test was made.
- (2) Records of these pressure surveys shall be maintained by the Utility for a period of at least three years *or after the next General Rate Case filing, which ever is longer*, and shall be made available to representatives, agents or employees of the Commission upon request.

## **VIII. Customer Service and Reporting Standards for Water and Wastewater Service Utilities**

### **A. General**

*Consumers expect and should receive service that is consistently adequate, reliable, and in compliance with applicable water quality standards. Standardized reporting requirements and regular reporting are necessary for regulators to be able to monitor service quality and changes in performance. Reporting requirements should be carefully designed to yield accurate data that is uniform and consistent.*

### **B. Reporting**

*When a Utility is required to report the following information it shall do so in accordance with Attachment 2 of this GO or the Utility's Tariffs.*

- (1) Performance results including meter reading and work completion standards shall be aggregated quarterly, and shall be reported annually to the Commission.*
- (2) Reports on company-wide performance shall be made in conjunction with each utility's annual report to the Commission's Division of Water and Audits (or its successor), with copies provided to the Division of Ratepayer Advocates (or its successor).*
- (3) Annual reports shall include both annual and quarterly averages. Annual averages shall be derived from raw data, not by averaging quarterly averages.*
- (4) Where quarterly performance is substantially out of compliance with an applicable standard (defined in the context of each performance measure), the Utility shall within 30 days of the end of the quarter in which this provision is triggered, submit a plan to Division of Water and Audits and DRA's Water Branch, or their successors, indicating how it will remedy the deficiency.*
- (5) Performance shall be evaluated and reported to one decimal place for all performance areas unless otherwise specified. Actual performance shall be rounded up when the relevant decimal place is 5 or more. The Utility shall retain all of its reports that support the*

*results for each of the performance areas for a period of not less than 36 months after the results are reported. The Utility shall provide these reports upon request to the Commission.*

- (6) The Utility shall explain in its annual report any change to the Utility's measurement protocol or to the internal reporting methods that are used to obtain the data measured.*
- (7) The Utility's annual report shall identify any missing data or events that could reasonably affect the quality of the data reported.*
- (8) The Utility may seek a variance from any applicable performance standard in accordance with Section I.8.A of this GO. A variance may be granted for demonstrated good cause, such as where the circumstances causing the failure were beyond the Utility's control, and the Utility can demonstrate that its level of preparedness and response was reasonable in light of the cause of the failure.*

**C. Telephone Performance Standards**

*All Utilities shall provide emergency telephone access, including after-hours access, for their customers. If a telephone complaint pertains to an urgent service issue presenting health or safety concerns, the Utility shall respond within 24 hours. Class A and B Water Utilities shall comply with telephone performance standards set forth in Attachment 2 of this GO.*

**D. Billing Performance Standards**

- (1) Class A and B Water Utilities shall establish billing performance standards as set forth in Attachment 2 of this GO.*
- (2) Performance results shall be reported in accordance with Section VIII.B.*

**E. Meter Reading Performance Standards**

- (1) Class A and B Water Utilities shall establish meter reading performance standards in accordance with Attachment 2 of this GO.*
- (2) Each Utility shall report their performance results in accordance with Section VIII.B.*

**F. Work Completion Performance Standards**

- (1) *When scheduling appointments, the Utility will provide the customer with a four-hour period during which the Utility representative will be at the customer's premises. The Utility must attempt to notify the customer as soon as it is aware that the meeting time must be changed. Class A and B Water Utilities shall determine the scheduled appointment performance in accordance with Attachment 2 of this GO.*
- (2) *Class A and B Water Utilities shall determine the percentage of customer-requested work not completed on or before the scheduled date shall be determined in accordance with Attachment 2 of this GO.*
- (3) *The Utility must correct all problems that result from the flooding of sewers within 24 hours of being informed of the flooding event, except during extreme precipitation such as 100 or 500 year floods.*

**G. Customer and Regulatory Complaint Performance Standards**

- (1) *A complaint is a request requiring an investigation or action on the part of the Utility to address an alleged problem, deficiency, or inadequacy in the utility's provision, pricing, or billing for its service. An inquiry to the Utility requiring neither investigation nor action is not a complaint.*
- (2) *Upon complaint to the Utility by a customer communicated to the utility's office, by letter, by telephone, or by email or to the Utility's internet web page if it supplies a site for customer service, the Utility will contact the customer within three business days to acknowledge receipt of the complaint. All Class A and B Water Utilities shall have a website for customer service.*
- (3) *The Utility shall provide, within 10 business days of receipt, a substantive response to customer complaints expressed directly to the utility by any method of contact.*
- (4) *The Utility shall provide a substantive response to informal customer complaints to the CPUC within 20 business days after the complaint has been forwarded to the utility by the CPUC.*
- (5) *If the Utility needs additional time to respond fully to a complaint received directly from a customer or indirectly by way of the CPUC, the Utility shall within the initial response period request a specific*

*additional time for response and shall provide a final response within the requested additional time.*

- (6) *The Utility shall keep a record of each complaint, categorized by the nature of the complaint, that shows the name and address of the complainant, the date and nature of the complaint, and the adjustment or disposition, for a period lasting from the time the complaint is filed with the Utility until issuance of the principal decision in its next general rate case.*
- (7) *After issuance of the general rate case final decision subsequent to the filing of the complaint, the Utility shall retain, at its option, either the original complaints or a summary of such complaints. Inquiries with reference to rates or charges, which require no further action by the Utility, need not be recorded. Complaints that are determined to be out of the direct control of the Utility (including but not limited to complaints relating to natural disasters) may be recorded in a summary list only.*

***APPENDIX A NON POTABLE WATER SYSTEMS***

***Sections of Rules Governing Water Service Including Minimum Standards for Design and Construction which shall be applicable to utility water systems supplying water not intended or claimed to be potable from ditches, canals or other conduits.***

*Section I—General*

*All paragraphs of this section, except Paragraph 4, (1) and (5)*

*Section II – Standards of Service*

*Paragraphs 2 B. (1) and (8), 3 and 4 of this section, except that paragraph 3 C. shall not apply to scheduled interruptions as provided in applicable tariffs.*

*Section III – Standards of Design and Construction*

*None.*

*Section IV – Measurement of Service*

*All paragraphs of the section, except when sales are measured by other than displacement meters as provided in applicable tariff schedules only paragraphs 1.C., 3. A. and E., 5, 6. A., and 7 shall apply.*

*Section V – Rates and Billing*

*All paragraphs of the section.*

*Section VI – Fire protection Standards*

*None*

*Section VII – Operations and maintenance, Records and Reports*

*Paragraphs 1., 2., 3. A. (1) and 3. C.*

## ***APPENDIX B\_SEWER SYSTEMS***

***Sections of Rules Governing Water Service Including Minimum Standards for Design and Construction which shall NOT be applicable to sewer utilities.***

### *Section I—General*

*Paragraph 3, (1), (2), (6), (7) and (8)*

### *Section II – Standards of Service*

*Paragraphs 2 A. (1) through (7)*

*Paragraphs 2 B. (1) through (5)*

### *Section III – Standards of Design and Construction*

*Paragraphs 1 A. (3) and B*

*Paragraphs 2 A. (1)*

*Paragraphs 3 through 7*

### *Section IV – Measurement of Service*

*Paragraphs 1 A. and C*

*Paragraphs 2 B. and C*

*Paragraphs 3, 5, and 6*

### *Section V – Rates and Billing*

*Paragraph 2*

### *Section VI – Fire protection Standards*

*(ALL)*

*Section VII – Operations and Maintenance, Records and Reports*

*Paragraphs 1 A. and B*

*Paragraphs 2 A. and B*

*Paragraphs 3 A*

*Paragraphs 4 A. (2)*

*Paragraphs 5 A. through D*

*Paragraphs 7 and 8 (all)*

## **APPENDIX C**

### **Records Retentions Schedules**

***(Resolution No. A-4691, July 12, 1977)***

#### ***PUBLIC UTILITIES COMMISSION***

#### ***REGULATIONS TO GOVERN THE PRESERVATION OF RECORDS OF WATER UTILITIES, CLASSES A, B & C***

### ***GENERAL INSTRUCTIONS***

#### ***SCOPE OF THIS PART***

*The regulations in this part apply to all records prepared by or on behalf of water utilities, Classes A, B and C.*

*The regulations in this part shall not be construed as excusing compliance with any other lawful requirement for the preservation of records for periods longer than those prescribed herein.*

#### ***DESIGNATION OF SUPERVISORY OFFICIAL***

*Each water utility subject to the regulations herein shall designate one or more persons and positions with official responsibility to supervise the Utility's program for preservation and the authorized destruction of its records.*

### ***PROTECTION AND STORAGE OF RECORDS***

*The water utility shall provide reasonable protection for records subject to the regulations herein. Records shall be arranged in such a manner as to be easily identifiable and accessible to representatives of this Commission.*

#### *MICROFILM AND TAPE CERTIFICATION*

*All microfilm and tape records shall contain labels including the title, date prepared, name of official responsible for validating the data, date of completion, and certification that the records are true and accurate reproductions of the original records.*

*All film stock shall be approved operationally-permanent record microcopying type, which meets the current specifications of the National Bureau of Standards.*

#### *RETENTION PERIODS*

*The retention periods specified in these regulations are minimum periods. The Utility may retain records for longer periods when appropriate.*

#### *PREMATURE DESTRUCTION OR LOSS OF RECORDS*

*When records are destroyed or lost before the expiration of the prescribed period of retention, a certified statement listing the records destroyed and prescribing the circumstances of accidental or other premature destruction or loss shall be filed with the Commission within sixty (60) days from the date of discovery of such destruction.*

#### *RECORDS OF SERVICES PERFORMED BY AFFILIATE*

*The water utilities to which the regulations herein apply shall assure the availability of records of services performed by associated and affiliated companies for the periods indicated herein, as are necessary, to support the cost of services rendered to it by an associated or affiliated company.*

#### *RECORDS OF INTERRUPTIONS*

*Each Utility shall keep a complete record of all interruptions, both emergency and scheduled, when more than 10 service connections are interrupted. These records of interruptions are to be kept with the Utility's permanent records and shall include:*

1. *Date and time of service interruption*
2. *Date and time service is restored*
3. *Number of service connections affected*
4. *Equipment that operated or failed*
5. *Cause of interruption*
6. *Actions required to restore service*
7. *Identification of person reporting*
8. *Steps taken to prevent recurrence*

*Records of interruption shall be maintained by the Utility for a period of years or after the next General Rate Case filing, whichever period is longer.*

#### ***WATER QUALITY RECORDS RETENTION***

*Results of water quality testing, including tests conducted in connection with disinfection of new or repaired mains, and disinfection of reservoirs or wells, records of flushing of mains, and records of reservoir inspections and cleaning, shall be maintained for at least three years.*

*SCHEDULE OF RECORDS AND PERIODS OF RETENTION*

<i>Description</i>	<i>Retention Period</i>
<i>CORPORATE AND GENERAL</i>	
<i>1. Capital stock records:</i>	<i>6 years after cancellation or other closing of accounts.</i>
<i>2. Proxies and voting lists:</i>	<i>3 years.</i>
<i>3. Annual reports or formal communications or statements to stockholders:</i>	<i>Life of corporation.</i>
<i>4. Debt security records:</i>	<i>6 years after redemption, payment or cancellation.</i>
<i>5. Filings with and authorizations by the Commission:</i>	<i>25 years or until all securities covered are retired, whichever is shorter.</i>
<i>6. Corporate organizational documents:</i>	<i>Life of corporation, with the exception of permits, deeds and title documents which shall be retained for 6 years after termination or disposition of property.</i>

*SCHEDULE OF RECORDS AND PERIODS OF RETENTION*

<i>Description</i>	<i>Retention Period</i>
<i>CORPORATE AND GENERAL, Continued</i>	
<i>7. Contracts and agreements (except contracts provided for elsewhere):</i>	<i>6 years with the following exceptions:</i>
<i>(a) Contracts or agreements for the acquisition or disposition of investments(excluding temporary cash investments):</i>	<i>25 years after disposition.</i>

- (b) *Memoranda essential to clarifying or explaining provisions of contracts listed above:* *For the same periods as contracts to which they relate.*
- (c) *Card or book records of contract, leases, and agreements made, showing dates of expirations and of renewals, memoranda of receipts and payments under such contacts, etc.:* *For the same periods as contracts to which they relate.*
8. *Accountants' and auditors' reports, internal and external:* *7 years after date of report or Commission audit, whichever comes last.*
9. *Automatic data processing records:* *Retain original source data for the periods prescribed elsewhere in the schedule; retain all other data as long as part of active program.*

#### *GENERAL ACCOUNTING RECORDS*

10. *General and subsidiary ledgers and journals; journal vouchers, journal entries (including supporting detail), vouchers and voucher registers:* *50 years.*
11. *Trial balance sheets of general and subsidiary ledgers:* *3 years.*
12. *Cash books, general and subsidiary or auxiliary books:* *10 years after close of fiscal year.*

*SCHEDULE OF RECORDS AND PERIODS OF RETENTION*

<i>Description</i>	<i>Retention Period</i>
<i>GENERAL ACCOUNTING RECORDS, Continued</i>	
<i>13. Accounts receivable and supporting records:</i>	<i>3 years.</i>
<i>14. Records of securities owned, in or with custodians (excluding temporary investment of cash):</i>	<i>6 years after disposition of treasury, investment</i>
<i>15. Payroll records and insurance records:</i>	<i>6 years, except where information transferred to other records.</i>
<i>16. Assignments, attachments, and garnishments:</i>	<i>None</i>
<i>17. Records of injuries and damages:</i>	<i>2 years after settlement or other disposition.</i>

*OPERATIONS AND MAINTENANCE*

<i>Production records of sources of supply, pumping, transmission, and distribution:</i>	<i>15 years, except as follows:</i>
<i>(a) Water reports showing purchases and exchanges:</i>	<i>25 years.</i>
<i>(b) Water treatment records:</i>	<i>10 years.</i>
<i>(c) Daily dispatch logs:</i>	<i>1 year.</i>

- (d) *Customer service records:* 5 years
- (e) *Maintenance work and job orders:* 6 years.
- (f) *Equipment repair records:* Life of equipment.
19. *Personnel records including employees' benefit and pension records, and operating and procedural instructions issued by the company to employees:* 3 years after termination of employment, plan or instructions.
20. *Plant and depreciation records, including plant inventory, drilling, appraisals, engineering records, construction records and contracts relating to above:* 50 years.

*SCHEDULE OF RECORDS AND PERIODS OF RETENTION*

<i>Description</i>	<i>Retention Period</i>
<i>MISCELLANEOUS</i>	
21. <i>All purchase and supply records:</i>	6 years.
22. <i>All revenue, accounting and collecting records:</i>	10 years, except as follows:
(a) <i>Where refunds required:</i>	6 years after refund.
(b) <i>Documents relating to donations and contributions:</i>	50 years.
(c) <i>Published rates and service schedule:</i>	50 years.
23. <i>Tax records:</i>	7 years after settlement.

- |   |   |
|---|---|
| 24. <i>Treasury records (funds, deposits, receipts and disbursements):</i>                                  | <i>Completion of annual audit by independent accountants.</i> |
| 25. <i>All annual reports to the Commission and special reports relating to plant and utility property:</i> | <i>Life of corporation.</i>                                   |
| 26. <i>All other reports and documents:</i>   | <i>Fulfillment of regulatory requirements.</i>                |
| 27. <i>Life or mortality study data for depreciation purposes:</i>  | <i>Life of corporation.</i>                                   |

## APPENDIX D

### *Appendix D Report Card Billing*

*This Appendix explains the minimum amount of information that must be included with the bill to the customer.*

*Meter Readings: Previous and Present; Service Charge; Commodity Charge Past due after date Quantity per billing unit (Hundred Cubic Feet, thousand Gallons etc); Billing period; Usage Comparison; Amount Due*

ATTACHMENT 1

POINTS OF INTEREST

*Meter Readings, Previous and Present.* The availability of these two readings will allow you to calculate your own bills. The difference between the previous meter reading and the present one equals the amount consumed during the billing period, measured in hundred cubic feet. (One hundred cubic feet equals 748 gallons.)

*Water Charges.* This is the amount of your current bill, including the service charge and the quantity charge, which are calculated in example to the right.

*Past Due After.* This is the date after which the bill will be considered "past due" and delinquent.

*Service Charge.* This is a monthly or bi-monthly (depending on your billing cycle) charge made to each customer connected to our system. It is based on the size of your meter.

Southwest Suburban Water			
SERVICE ADDRESS			
ACCOUNT NUMBER	SERVICE FROM	SERVICE TO	DAYS OF SERVICE
838 0262 025	3 / 17 / 82	5 / 18 / 82	55
METER READINGS		CONSUMPTION AS OF PRESENT METER READING	AMOUNT OF CHARGES
PREVIOUS	PRESENT		
7654	7698	44	34.61
BILLING PERIOD		DAYS	USAGE
THIS YEAR		55	36
LAST YEAR			
TOTAL		QUANTITY RATES PER 100 CUBIC FEET	PAYMENTS REC
15.48	5	3.27	18.86
15.48	5	3.75	18.86
		PREVIOUS BALANCE	18.86
		TOTAL	34.61
		PAY THIS AMOUNT	
***** CUSTOMER MESSAGE *****			
Southwest Suburban Water			
NAME		PAST DUE AFTER	
XXX STREET		6 / 10 / 82	
CITY, STATE, ZIP		SERVICE USE ONLY	
ACCOUNT NUMBER		AMOUNT DUE	
838 0262 025		34.61	
RETURN THIS SLIP WITH YOUR PAYMENT			

36	TOTAL CONSUMPTION	
- 6	1st	
30		
\$ .327	1st RATE	} Cost You Own Bill
X 6		
\$ 1.962		
\$ .575	OVER RATE	
X 30		
\$ 17.25		
\$ 1.96	1st	
17.25	OVER	
15.40	SERVICE CHARGE	
\$ 34.61	AMOUNT DUE	

*Quantity Rates Per 100 Cubic Feet.* This section shows the rate at which your water usage was billed. Your water is billed at two step rates, a basic "lifeline" rate is charged for the first ("1st") designated quantity. Then a higher rate is charged for usage over the basic ("1st") quantity.

*Billing Period Usage Comparison.* In this area you will see how much water you have used during this billing period, compared with your usage last year during a similar billing period. The "Last Year" section will remain blank during the first year while we accumulate your monthly usage figures.

*Amount Due.* This is the amount you owe. It represents the total amount due for current charges including the service charge and the quantity charge for the cubic feet of water used during the billing period. The amount due may also include billing adjustments and an unpaid balance, if shown. To figure your water charges, multiply the quantity of water consumption shown by the quantity rate, and then add the service charge. See above example.

## **Attachment 2 Customer Service and Reporting Standards**

### **I. Working Group (WG) Evaluation Process**

Two WG meetings were held to review and develop the customer service and reporting performance standards based on the Vermont Gas System's Performance, Monitoring, and Reporting (VGS) Plan proposed in the Commission's Rulemaking. The VGS plan included performance measures for-

- a. Call answering, billing, meter reading, completion of customer requested work;
- b. Customer satisfaction measures;
- c. Work safety and reliability performance measures; and
- d. Service guarantees and service quality compensation.

The VGS Plan was used as a "straw man" proposal and from it the WG developed the customer service and reporting standards below based on the applicability of the standards included in the VGS Plan and the WG discussions. Significant input was provided from the customer service representatives and managers from Class A and B Water Utilities and from representatives from DRA and TURN.

Division of Water and Audits (DWA) staff recommends:

- a) Adding new section to the GO for customer service standards and reporting requirements standards for water and wastewater service utilities. This new section sets the reporting requirements for customer service performance for telephone response, billing, meter reading, and work completion.
- b) Making the customer service performance standards listed below applicable to the Class A and B Water Utilities only because of the technical requirements and resources needed for implementation.

**Attachment 2**  
**Customer Service and Reporting Standards**

**II. Customer Service and Reporting Standards for Water and Wastewater Service Utilities**

**A. General**

*Consumers expect and should receive service that is consistently adequate, reliable, and in compliance with applicable water quality standards. Standardized reporting requirements and regular reporting are necessary for regulators to be able to monitor service quality and changes in performance. Reporting requirements should be carefully designed to yield accurate data that is uniform and consistent.*

**B. Reporting**

*When a Utility is required to report the information below it shall do so as follows:*

- (1) Performance results including meter reading and work completion standards shall be aggregated quarterly, and shall be reported annually to the Commission.*
- (2) Reports on company-wide performance shall be made in conjunction with each utility's annual report to the Commission's Division of Water and Audits (or its successor), with copies provided to the Division of Ratepayer Advocates (or its successor).*
- (3) Annual reports shall include both annual and quarterly averages. Annual averages shall be derived from raw data, not by averaging quarterly averages.*
- (4) Where quarterly performance is substantially out of compliance with an applicable standard (defined in the context of each performance measure), the Utility shall within 30 days of the end of the quarter in which this provision is triggered, submit a plan to Division of Water and Audits and DRA's Water Branch, or its successors, indicating how it will remedy the deficiency.*
- (5) Performance shall be evaluated and reported to one decimal place for all performance areas unless otherwise specified. Actual performance shall be rounded up when the relevant decimal place is 5 or more. The Utility shall retain all of its*

## Attachment 2 Customer Service and Reporting Standards

*reports that support the results for each of the performance areas for a period of not less than 36 months after the results are reported. The Utility shall provide these reports upon request to the CPUC.*

- (6) *The Utility shall explain in its annual report any change to the Utility's measurement protocol or to the internal reporting methods that are used to obtain the data measured.*
- (7) *The utility's annual report shall identify any missing data or events that could reasonably affect the quality of the data reported.*
- (8) *The Utility may seek a waiver of any applicable performance standard in accordance with Section I.8.A of this GO. A waiver may be granted for demonstrated good cause, such as where the circumstances causing the failure were beyond the Utility's control, and the Utility can demonstrate that its level of preparedness and response was reasonable in light of the cause of the failure.*

### **C. Telephone Performance Standards**

*All Utilities shall provide emergency telephone access, including after-hours access, for their customers. Further, to ensure that customer inquiries have timely responses during normal business hours, all Water Utilities shall comply with telephone performance standards and reporting criteria as follows:*

#### *(1) Call answer performance measures*

*Call Answering Service Level: Percentage of customers reaching a utility representative during normal business hours within 30 seconds after requesting to speak with a customer service representative (CSR)*

*Performance shall be calculated as follows:*

*Number of calls reaching a utility representative within 30 seconds*

*Number of attempts to reach a utility representative.*

*Performance measure: greater than or equal to 80 %*

## **Attachment 2**

### **Customer Service and Reporting Standards**

*For this performance measure, substantially out of compliance is deemed to be less than 60%*

*Source of data: data obtained from the Utility's existing telephone system or, if applicable, the Utility's automated call distribution system (ACD). The data will include all calls reaching the ACD during the normal business hours.*

- (2) *Abandoned call rate during normal business hours: Percentage of calls abandoned before reaching a Utility representative (requested by the customer) during normal business.*

*Performance shall be calculated as follows:*

*Number of calls abandoned/Number of attempts to reach a utility representative*

*Information measure:  $\leq$  5 %.*

*Source of data: The standard shall be measured by using data obtained from the Utility's existing telephone system or, if applicable, the Utility's automated call distribution system (ACD) during normal business hours*

#### **D. Response to Customer and Regulatory Complaints**

**Performance Standards:**

- (1) *Upon complaint to the utility by a customer communicated to the utility's office, by letter, by telephone, or by email to the utility's internet web page if it supplies a site for customer service, the utility will contact the customer within three business days to acknowledge receipt of the complaint. All Class A and B Water Utilities shall have a website for customer service.*
- (2) *The Utility shall provide, within 10 business days of receipt, a substantive response to customer complaints expressed directly to the utility by any method of contact.*
- (3) *The Utility shall provide a substantive response to informal customer complaints to the Commission within 20 business days after the complaint has been forwarded to the utility by the Commission.*

**Attachment 2**  
**Customer Service and Reporting Standards**

- (4) *If the Utility needs additional time to respond fully to a complaint received directly from a customer or indirectly by way of the CPUC, the Utility shall within the initial response period request a specific additional time for response and shall provide a final response within the requested additional time.*
- (5) *Rate of complaints to the Commission's Consumer Affairs: Percentage of customers who file complaints with the Consumer Affairs Branch of the Commission. Performance shall be calculated as follows:*
- Number of complaints reported annually to the utility by the CAB/Total number of customers*
- Performance measure:  $\leq 0.1\%$*
- Source of data: Data shall be obtained from the quarterly reports provided by the Commission to the utility from the Commission's Consumer Affairs Tracking System. Results shall be reported to the second decimal place.*

**E. Billing Performance Standards**

- (1) *Percentage of bills not rendered (mailed) within seven calendar days of the scheduled billing date. Performance shall be calculated as follows:*
- Number of bills not rendered within seven calendar days of the scheduled billing date/Total number of bills scheduled to be rendered.*
- Exclusions: The measurement will exclude accounts that were activated within 10 calendar days prior to the normal billing cycle; accounts that are scheduled to receive a final bill within 10 calendar days after the normal billing cycle; off-system sales; utility use accounts; periods during which rates are changed.*
- Performance measure:  $\leq 1.0\%$*
- Source of data: This standard shall be measured by using data obtained from the Utility's Customer Information System or equivalent records. Results shall be reported to one decimal place.*

## Attachment 2 Customer Service and Reporting Standards

- (2) *Bills found inaccurate: Percentage of bills found inaccurate after being sent to customers, brought to utility's attention either as result of customer complaints and/or by the utility's own efforts. Performance shall be calculated as follows:*

*Number of bills rendered inaccurately for the cycle/Total number of bills rendered for the billing cycle*

*Exclusions: This standard does not include bills found to be inaccurate strictly as result of estimation, bills where the inaccuracy does not affect the calculation of the bill, or where the fault does not lie with the utility.*

*Performance measure:  $\leq 3.0\%$*

*Source of data: This standard shall be measured by using data obtained from the Utility's Customer Information System or equivalent records. Results shall be reported to the second decimal place.*

- (3) *Payment posting errors: Percentage of customer payments posted incorrectly due to the utility's error. Performance shall be calculated as follows:*

*Number of payment posting errors/Total number of payments posted*

*Performance measure:  $\leq 1.0\%$*

*Source of data: This Standard shall be measured by using data obtained from the utility's Customer Information System (CIS) or equivalent manual records.*

- (4) *Final Read and Final Bill: The utility is required to read the customer's meter on the day the customer specifies so long as five (5) calendar days notice is given by the customer. The utility will provide a final bill within 14 calendar days of the meter read.*

### **F. Meter Reading Performance Standards**

- (1) *Percentage of actual meter readings per billing cycle: Percentage of meters not read each cycle in relation to the number that was scheduled to be read, exclusive of meters*

## Attachment 2 Customer Service and Reporting Standards

*covered by AMR. Performance shall be calculated as follows:*

*Number of scheduled meters not read/Number of meter readings scheduled*

*Performance measure/Manual reads:  $\leq 3.0\%$*

*Source of data: Data shall be obtained from the Utility's Customer Information System.*

### **G. Work Completion Performance Standards**

- (1) *Keeping Scheduled Appointments: When scheduling appointments, the utility will provide the customer with a four-hour period during which the utility representative will be at the customer's premises. The utility must attempt to notify the customer as soon as it is aware that the meeting time must be changed.*

*Number of scheduled appointments missed/Number of scheduled appointments*

*Performance measure:  $\leq 5.0\%$*

- (2) *The utility must correct all problems that result from the flooding of sewers within 24 hours of being informed of the flooding event, except during extreme precipitation such as 100 or 500 year floods.*
- (3) *Percentage of customer-requested work not completed on or before the scheduled date: The percentage of jobs resulting from customer requests for meter turn-ons, meter read-over, disconnects and reconnects (collectively "customer orders") that are not completed on or before the scheduled date.*

*Performance shall be calculated as follows:*

*Number of customer orders not completed on or before the scheduled date/Total number of customer orders scheduled and completed in the reporting month*

*Exclusions: When an event outside of the utility's control occurs resulting in the work not being completed as promised, utility will renegotiate the scheduled date with the customer.*

*Performance measure:  $\leq 5\%$*

## **Attachment 2**

### **Customer Service and Reporting Standards**

*Source of data: For all customer orders, data shall be obtained from the Utility's Customer Information System or equivalent record. When a customer calls for included work, a service request is created for the date promised to the customer. Reports are generated monthly of all meter orders closed during the prior month and are reviewed for the following exclusions: (1) delayed at the customer's request or because the customer was not ready for the work to be performed, (2) meter order request not the result of a customer request but rather an internal request for meter order work, (3) non-regulated business activities.*

## Attachment 3

# Working Group Meetings' Sign-In Sheets

## GO-103 - WG 4

Workshop - 3/25/08

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**General Order 103 Working Group 1  
Sign-In Sheet  
March 27, 2008**

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6	Fred L. Curry	CPUC - DWA	flec@cpuc.ca.gov
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11	MOISES CHAVEZ		
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13	Bill Gedney	Golden State Water Company	wcgedney@gswater.com
14			
15			
16			
17			

CALCULATION SHEET

SUBJECT WGI SIGN-IN SHEET

DATE April 3, 2008

MADE BY \_\_\_\_\_

CHECKED BY \_\_\_\_\_

<u>NAME</u>	<u>CO-NAME</u>	<u>E-MAIL ADDRESS</u>
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Bill McDonald	GSWC	billmcdonald@gswater.com

WGZ SIGN-IN SHEET

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MOISES CHAVEZ	CPUC	
TOM		

# General Order 103 Working Group 3

## Sign-In Sheet

### April 10, 2008

	Name	Company Name	e-mail address
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2	John Foth	California Water Service Company	jfoth@calwater.com
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4	Patrick Scoulton	Golden State Water Co.	psoulton@gswater.com
5	Tom Bunasky	CAL - AM	TOM.BUNASKY@AMWATER.COM
6	Darlene Clark	CAL - Am	darlene.clark@amwater.com
7	Michael REESE	APPLEVALEY RAUCHOS WATER	MIKER@AVR <sup>WATER</sup> .COM
8	JERRY BENDER	A.V.R.W.C.	jerry@avrwater.com
9	STEVE LANCE	PARK WATER Co.	STEVE@PARKWATER.COM
10	Jim Elliott	Park Water	jelliott@parkwater.com
11	TOM VICTORINE	SAN JOSE WATER Co	<del>tom.v@pacbell.net</del>
12	Terence Shia	DWA - CPUC	TS2@CPUC.CA.GOV
13	NOISES CHAVEZ	" "	
14	Jack Hawks	California Water Association	jhawks-cua@comcast.net
15	Ben Lewis	CAL - Am	benjamin.lewis@amwater.com
16			
17			

tom\_victorine@sjwater.com

**General Order 103 Workshop  
Sign-In Sheet  
June 24, 2008**

	Name	Company Name	e-mail address
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3	Fred L. Curry	CPUC	flc@cpuc.ca.gov
4	Bob Kelly	Suburban Water Systems	BOBKELLY@BOBKELLY.COM
5	Keith Switzer	GSWC	KSWITZER@GSWATER.COM
6	DARLENE CLARK	CALIF, American Water	darlene.clark@amwater.com
7	Martin Mattes	CWA	mmattes@hossanan.com
8	Sten Ferraro	cal water	sferraro@calwater.com
9	Andy Clarke	Alco Water Service	andy@alco.water.com
10	Yoke Chan	DRA	YWC@cpuc.ca.gov
11	Sung Han	DRA	sbh@cpuc.ca.gov
12	TOM VICTORINE	SAN JOSE WATER Co	tom-victorine@sjwater.com
13	Ann Lindahl	San Jose Water Co	ann-lindahl@sjwater.com
14	BILL TUTTLE	SAN JOSE WATER CO.	bill_tuttle@sjwater.com
15	YUEN, TING-PONG	CPUC	TPY@CPUC.CA.GOV
16	JOE COMO	CPUC	JOC@CPUC.CA.GOV
17	Jack Hawks	CWA	jhawks_cwa@comcast.net

**Sign-In Sheet**  
**General Order 103**  
**June 26, 2008**

	Name	Company Name	e-mail address
1	Andy Clarke	Alco Water Service	andy@alcowater.com
2	Jack Hawks	CWA	jhawks-cwa@comcast.net
3	Darlene Clark	Cal Am	darlene.clark@amwater.com
4	Sung Han	DRA	shh@cpuc.ca.gov
5	Fred L. Curry	CPUC	flc@cpuc.ca.gov
6	Terence Shirk	CPUC	
7	Bill Tuttle		
8	Ann Lindahl		
9	Ed Jackson		
10	Doug Krupinski		
11	Ed Sliger		
12	Gladys Resendo		
13	Marty Mattes		
14	Bob Kelley		
15	Jason Zeller	CPUC	jz@cpuc.ca.gov
16	Ann from SJW		
17			

web  
↓

## Sign-In Sheet

### General Order 103, Working Group 5

June 26, 2008

	Name	Company Name	e-mail address
1	Andy Clarke	California Utilities Service	andy@alcowater.com
2	MOISES Chavez	CPUC, DWA	
3	DARLENE CLARK	CAL. American	darlene.clark@amwater.com
* 4	Gladys Rosendo	Golden State	
* 5	Dong Krupinski	CAL Am	
* 6	Tom Bunosky	CAL Am	
7	Fred L. Curry	CPUC	flc@cpuc.ca.gov
8	Terence Shia	CPUC, DWA	TSZ
* 9	Marty Mattes	CWA	
10	Sung Han	CPUC DRA	sbh@cpuc.ca.gov
* 11	Tom Pederson	CAL Am	
12			
13			
14			
15			
16			
17			

\* called in

Attachment 4

General Order 103 Workshop Report  
March 18, 2008

# **General Order 103 Workshop Report**

**California Public Utilities Commission  
Water & Audits Division**

**Prepared by  
Moises Chavez & Adam Thaler**

**March 18, 2008**

In Compliance with the California Public Utilities Commission's (Commission) Order Instituting Rulemaking (R.) 07-12-015, on February 25, 2008, the Water and Audits Division held a workshop to coordinate the evaluation process of the General Order (GO) 103 changes.

Attachment A provides the workshop agenda and Attachment B the list of workshop attendees and participants.

The workshop participants indicated the need for more than one workshop or for the creation of technical subcommittees for the review and evaluation of the GO 103 proposed changes. As a result the workshop participants agreed to:

1. Using a working group process to review and evaluate the proposed GO 103 changes and to provide recommendations back to the Commission.
2. Creating five (5) Working Groups (WGs) to review the segmented GO 103 issue areas specified in Section I of this report.
3. Having WG leads for each WG to coordinate the WG meetings and work products.
4. The WG guidelines described in Section I below; and
5. August 15, 2008 deadline for all WGs to submit their final work products.

The GO 103 issues raised at the workshop are summarized in Section II.

### **I. Working Groups and Group Leads**

Workshop participants agreed to creating five WGs outlined below and the specified GO 103 sections listed under each WG.

1. Working Group 1 will review the following GO 103 sections
  - a. Section I-- Definitions only
  - b. Section III-- Standards of Design and Construction
  - c. Section II-- Standards of Service: Water Supply Requirements and Quantity of Water
  - d. Section VI-- Fire Protection Standards
  - e. Working Group Lead – Bill Tuttle, San Jose Water Co.
  
2. Working Group 2 will review the following GO 103 sections
  - a. Section I-- Definitions only
  - b. Section II -- Standards of Service: Water Quality, Testing of Water
  - c. Working Group 2 Lead – Tarrah Henrie, California Water Service Co.

3. Working Group 3 will review the following GO 103 sections
  - a. Section I-- Definitions only
  - b. Section VII—Operation and Maintenance
  - c. Section IV – Measurement of Service
  - d. Working Group 3 Lead – Benjamin Lewis, American Water
  
4. Working Group 4 will review the following GO 103 sections
  - a. Section I – (All)
  - b. Section V – Rates & Billing
  - c. Section VII—Customer Relations-- Performance Standards
  - d. Working Group 4 Leads – Jack Hawks, California Water Association and Greg Milleman, Valencia Water Company
  
5. Working Group 5—Sewer Section
  - a. Tentative Group Leads – Dave Stephenson & Tom Adcock
  - b. Working Group 5 will determine whether sewer standards should be part of GO 103 or handle in a separate GO

Working Group guidelines and timelines:

First Working Group (WG) meeting for each of the WGs will be scheduled in March and April. Attachment C provides a schedule for the first Working Group (WG) meetings and the contact information for the WG leads.

- a. A formal notice is required for the first WG meeting and should be issued 10-days prior to the meeting. No formal WG meeting notifications are required for subsequent WG meetings, and notices of meetings will only be made to each WG distribution list.
- b. At anytime, anyone may request to be added to a WG distribution list by contacting the WG lead.
- c. At any point in the WG process, the WGs may request additional guidance from the assigned ALJ; these requests should be coordinated with staff from the Water and Audits Division.

- d. Additional workshop(s) may be scheduled to address global WG issues and that require input from all of the respondents to the Rulemaking.
- e. August 15, 2008, is the due date for the WGs to submit their final work products—the WGs recommended revisions to GO 103, including identification of areas on which WG participants could not reach agreement or consensus.

## **II. GO 103 Workshop Issues**

Below is the list of the GO 103 issues raised at the workshop, which should be considered in the WG meetings and in the final WG reports to the Commission, if the issues are relevant to the assigned GO 103 sections.

1. Applicability of GO 103 standards to class C and D water utilities and the limited representation by these utilities in the review process of the proposed GO 103 changes.
2. What process should be used to determine which GO 103 standards apply to class C and D water utilities?
  - a. C and D water utilities lack the resources to meet some of the GO 103 requirements (e.g., reporting requirements);
  - b. One option that was identified at the workshop is to create subsections within GO 103 for class C and D water utilities.
3. How do we get class C & D water utilities to participate in the process?
  - a. CWA will confer with its Small Company Committee members and Committee Chair Jim Downey, and propose a recommended course of action to the Commission on how the Class C and D water companies should be involved in the GO 103 process.
4. How should references to other agencies' (i.e., the CA Department of Public Health and Environmental Protection Agency) requirements be incorporated into the GO 103?
  - a. Should requirements only be referenced by code, included in their entirety, or appended?
  - b. WGs will propose how to best reference these requirements, and will also identify any additional rules/standards that need to be added into the GO;

5. The Commission should establish a procedure for updating references to other agencies' standards in the GO 103, when the referenced standards change.
  - a. The Commission's Resolution process was identified as one option for updating referenced requirements, which is the current mechanism that is used for handling updates to GO 96B.
6. Should standards for water and sewer utilities be in a separate GO?
7. What is the regulatory process for obtaining exemptions to GO103 requirements?

### **III. Workshop Report Comments**

On March 3, 2008, the Water and Audits Division issued the draft GO 103 Workshop Report for comment to the Rulemaking (R.) 07-12-015 and workshop distribution list. Comments were due on March 12, 2008. CWA was the only respondent that provided comments (informally via-email) on March 11, 2008. CWA's comments mainly provided corrections to the WG leads' names, which have been incorporated into the final copy of this report.

## **ATTACHMENT A**

### **General Order 103 Workshop Agenda**

February 25, 2008

Milton Marks Conference Center

Benicia Rooms A and B

Hiram W. Johnson State Building

455 Golden Gate Ave., San Francisco, CA

**The purpose of the workshop is to coordinate the evaluation process of the proposed GO 103 changes.**

- |                         |   |
|-------------------------|---|
| <b>9:00- 9:30 AM</b>    | <b>Welcome and overview of the workshop</b>   |
| <b>9:30-10:15 AM</b>    | <b>Discuss California Water Association's (CWA's) multiple workshops proposal and any other alternate proposals</b> |
| <b>10:15-10:30 AM</b>   | <b>Break</b>  |
| <b>10:30- 11:30 AM</b>  | <b>Continue discussion on workshop proposals &amp; identify G.O 103 sections for each workshop</b>                  |
| <b>11:30 AM-1:00 PM</b> | <b>Lunch</b>  |
| <b>1:00 - 1:30 PM</b>   | <b>Identify potential workshop dates and team leaders</b>   |
| <b>1:30- 2:00 PM</b>    | <b>Other</b>  |

**ATTACHMENT B**  
**General Order 103 Workshop**  
**Sign-In Sheet**  
**February 25, 2008**

	Name	Company Name	e-mail address
1	Ben Lewis	California American Water	benjamin.lewis@amwater.com
2	Adam Thaler	CPUC / Water	ajt@cpuc
3	Dan DeLuosa	San Gabriel	DADDELLOSA@SEVWATER.COM
4	Doug Martinet	Park Water Co	doug@parkwater.com
5	Gladys Rosendo	GSWC	grosendo@gswater.com
6	John Garon	GSWC	jgaron@gswater.com
7	Martin Mattes	Nossaman, Guthrie	mmattes@nossaman.com
8	Darlene Clark	Cal. Amer. Water	darlene.clark@amwater.com
9	Yoke Cha	DRA	YWC@CPUC.CA.GOV
10	Dave Stephenson	Cal Am	dave.stephenson@amwater.com
11	Stan Ferraro	Cal Water	sferraro@calwater.com
12	Fred L. Curry	CPUC	flc@cpuc.ca.gov
13	Bob Kelly	Suburban	BOBKELLY@BOBKELLY.COM
14	Andy Clarke	Alco Water	andy@alcowater.com
15	Tom Adcock	Alco Water	tom@alcowater.com
16	Sung Han	CPUC - DRA	shh@cpuc.ca.gov
17	Ravi KUMRA	"	YKK@CPUC.CA.GOV

ATTACHMENT B  
 General Order 103 Workshop  
 Sign-In Sheet  
 February 25, 2008

18	Tom Smeegal	Cal Water	tsmeegal@calwater.com
19	Jason Zeller	DRA	jiz@cpuc.ca.gov
20	Jack Hawks	CWA	jhawks-cwa@comcast.net
21	PALLE JENSEN	SNV JOSE WATER CO.	palle.jensen@sjwater.co
22	Ted Howard	CPUC	tmh@cpuc.ca.gov
23	TING YUAN	CPUC	TY@CPUC-CA.GOV
24	Greg Milleman	Valencia Water	gmilleman@valencia.com
25	John Roeder	Great Oaks Water	
26	Bob Fortino	Del Oro Water	
27	Harry Morales	East Pasadena Water	
28	Bob Cook	Fruitridge Vista Water	
29	Danilo Sanchez	DRA	
30			
31			
32			
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34			

} contact info,  
 did not  
 Attended  
 workshop

**Attachment C**  
**1<sup>st</sup> Working Group (WG) Meeting Schedule**  
**& WG Leads' Contact Information**

	<b>WG1</b>	<b>WG2</b>	<b>WG 3</b>	<b>WG4</b>	<b>WG 5</b>
<b>Meeting date &amp; time</b>	- March 27, 2008 - 10 am to 4pm	- April 4, 2008 - 10 am to 2:30 pm	-April 10, 2008 - 9:30 am to 4:00 pm	-March 25, 2008 - 10:00 am to 4:00 pm	No date
<b>Location</b>	-San Jose Water Co., Multi-media Room -1221 Bascom Ave. San Jose CA	-Cal Water General Office 1720 North First Street San Jose, CA 95112	-California American Water Corporate office: -303 H Street, Suite 210, Chula Vista, CA	-Castaic Lake Water Agency, Water Conservation Garden & Learning Center -27234 Bouquet Canyon Road -Santa Clarita, CA 91350	
<b>WG Lead(s) &amp; contact information</b>	- <b>Bill Tuttle</b> -Director of Engineering Water Services and Planning -San Jose Water Co. - (408) 279-7861 - (408) 279-7889 (fax) - e-mail: <a href="mailto:bill_tuttle@sjwater.com">bill_tuttle@sjwater.com</a>	- <b>Tarrah Henrie</b> -Water Quality Project Manager -California Water Service Co. -(209)547-7931 -Cell (408) 318-3427 -e-mail: <a href="mailto:THenrie@calwater.com">THenrie@calwater.com</a>	- <b>Benjamin Lewis</b> -Director of Operations and Customer Support -American Water (626)614-2511 (626)286-0188 (fax) -email: <a href="mailto:benjamin.lewis@amwater.com">benjamin.lewis@amwater.com</a>	- <b>Jack Hawks</b> -Executive Director, California Water Association - (415)561-9650 -(415) 305-4393 cell e-mail: <a href="mailto:jhawks_cwa@comcast.net">jhawks_cwa@comcast.net</a> - <b>Greg Milleman</b> of Valencia Water Company e-mail: <a href="mailto:gmilleman@valencia.com">gmilleman@valencia.com</a>	Dave Stephenson & Tom Adcock <a href="mailto:andy@alcowater.com">andy@alcowater.com</a>
<b>GO 103 Sections</b>	<b>Section I</b> -- Definitions only <b>Section III</b> -- Standards of Design and Construction <b>Section II</b> -- Standards of Service: Water Supply Requirements and Quantity of Water <b>Section VI</b> -- Fire Protection Standards	<b>Section I</b> -- Definitions only  <b>Section II</b> -- Standards of Service: Water Quality, Testing of Water	<b>Section I</b> -- Definitions only  <b>Section VII</b> —Operation and Maintenance  <b>Section IV</b> – Measurement of Service	<b>Section I</b> – (All)  <b>Section V</b> – Rates & Billing  <b>Section VII</b> —Customer Relations-- Performance Standards	Working Group 5 will determine whether sewer standards should be part of GO 103 or handle in a separate GO