WAC 246-290-820 Distribution system leakage standard. (1) Municipal water suppliers shall determine distribution system leakage annually under subsection (2) of this section or an alternative methodology under subsection (3) of this section.

(a) Municipal water suppliers shall include (i), (ii), or (iii) of this subsection in water use efficiency performance reports developed under WAC 246-290-840 and water use efficiency programs developed under WAC 246-290-810:

(i) Distribution system leakage totals calculated under subsection (2) of this section shall be recorded in annual percent and volume;

(ii) Distribution system leakage totals calculated under subsection (3) of this section shall include annual figures and the approved alternative methodology's numerical standard(s); and

(iii) For systems not fully metered, the status of meter installation and any actions taken to minimize leakage.

(b) Municipal water suppliers will be considered in compliance with this section if any of the following conditions are satisfied:

(i) Distribution system leakage calculated in accordance with subsection (2) of this section is ten percent or less for the last three-year average;

(ii) Distribution system leakage calculated under subsection (3) of this section meets the numerical standards for the approved alternative methodology for the last three-year average;

(iii) For systems serving less than five hundred total connections, distribution system leakage calculated in accordance with subsection (2) of this section is twenty percent or less for the last three-year average and the steps outlined in subsection (5) of this section are completed; or

(iv) A water loss control action plan has been developed and implemented under subsection (4) of this section and the system is meeting the implementation schedule.

(2) Calculate the percent of distribution system leakage annually using the following equation:

$$DSL = [(TP - AC)/(TP)] \times 100$$

Where:

DSL	=	Percent of Distribution System Leakage (%)
TP	=	Total Water Produced and Purchased
AC	=	Authorized Consumption

(a) Total water produced and purchased, and authorized consumption must be calculated using data from meters installed under WAC 246-290-496. Elements of authorized consumption that cannot be metered, such as fire flow, must be estimated.

(b) All or portions of transmission lines may be excluded when determining distribution system leakage.

(c) Any water that cannot be accounted for shall be considered distribution system leakage.

(3) Municipal water suppliers may use an alternative methodology to calculate distribution system leakage if both (a) and (b) of this subsection are satisfied.

(a) The alternative methodology is contained in published standards or specifications of the department, Environmental Protection Agency, American Water Works Association, American Public Works Association, or American Society of Civil Engineers.

(b) The alternative methodology is approved for statewide use by the department, to provide a better evaluation of distribution system leakage than percent of total water produced and purchased, is appropriate for the system requesting to use it, and uses numerical standards so that compliance and action levels can be determined.

(4) If the average distribution system leakage for the last three years does not meet the standard calculated under subsection (1)(b)(i), (ii), or (iii) of this section, the municipal water supplier shall develop and implement a water loss control action plan. Municipal water suppliers shall submit the water loss control action plan to the department as part of a water use efficiency program under WAC 246-290-810 and upon request by the department. The control methods described in a water loss control action plan shall be commensurate with the level of leakage reported. The following items shall be included in the water loss control action plan:

(a) The control methods necessary to achieve compliance with the distribution system leakage standard;

(b) An implementation schedule;

(c) A budget that demonstrates how the control methods will be funded;

(d) Any technical or economic concerns which may affect the system's ability to implement a program or comply with the standard including past efforts and investments to minimize leakage;

(e) If the average distribution system leakage calculated under subsection (2) of this section is greater than ten and less than twenty percent of total water produced and purchased, the water loss control action plan must assess data accuracy and data collection;

(f) If the average distribution system leakage calculated under subsection (2) of this section is between twenty and twenty-nine percent of total water produced and purchased, the water loss control action plan must include elements listed under (e) of this subsection and implementation of field activities such as actively repairing leaks or maintaining meters within twelve months of determining standard exceedance;

(g) If the average distribution system leakage calculated under subsection (2) of this section is at thirty percent or above the total water produced and purchased, the water loss control action plan must include elements listed under (e) and (f) of this subsection and include implementation of additional control methods to reduce leakage within six months of determining standard exceedance; and

(h) If the average distribution system leakage calculated under subsection (3) of this section is over the approved alternative methodology's numerical standard, the department will take appropriate compliance actions and work collaboratively with the municipal water supplier to ensure the control methods and level of activity are commensurate with the level of leakage.

(5) Systems serving less than five hundred total connections may submit a request to the department for approval of an average distribution system leakage up to twenty percent. The following information must be submitted to the department with the request:

(a) Production volume;

(b) Distribution system leakage volume;

(c) Evidence documenting that:

(i) A leak detection survey using best available technologies has been completed on the system within the past six years for purveyors required to develop a small water system management program under WAC 246-290-105 or within the approval period of the most recent water

system plan for purveyors required to submit a water system plan under WAC 246-290-100;

(ii) All leaks found have been repaired;

(iii) The system is unable to locate additional leaks; and

(iv) Ongoing efforts to minimize leakage are included as part of the system's water use efficiency program; and

(d) Any technical concerns or economic concerns, or other system characteristics justifying the higher distribution system leakage.

[Statutory Authority: RCW 43.20.050 and 70.119A.080. WSR 17-01-062, § 246-290-820, filed 12/14/16, effective 1/14/17. Statutory Authority: RCW 70.119A.180 and 43.20.050. WSR 08-03-061, § 246-290-820, filed 1/14/08, effective 2/14/08. Statutory Authority: RCW 70.119A.180. WSR 07-02-025B, § 246-290-820, filed 12/22/06, effective 1/22/07.]

Reviser's note: The brackets and enclosed material in the text of the above section occurred in the copy filed by the agency.