



EPB 258- Permittee Monthly Review of Waterworks Operational Records

Section 41 (2) of *The Waterworks and Sewage Works Regulations Regulations* states that “every permittee of a waterworks shall review the records and logs kept pursuant to section 40 on a monthly basis to ensure that operating parameters and water quality parameters applicable to the operation of the waterworks are being achieved.”

In order to fulfill this requirement, the reviewer does not have to be an expert on waterworks operation or on water quality, but is to be conversant with the requirements of the Regulations and the Permit for the operation of that waterworks.

Operational Log Review and Content:

- review to ensure operational logs are legible and that chronological entries have been made for each day with the operator identified with initials or a signature;
- ensure any anomalies or missing data are explained;
- ensure operational logs are being saved (for at least five years) and available for inspection;
- ensure there is a record of raw water usage or treated water volume pumped into the distribution system. This data should be examined to ensure pumped volume is generally consistent with past use patterns and changes in water demand that can be reasonably expected;
- ensure the types, dosages and total amounts of chemicals used for water treatment are recorded and are generally consistent with past use patterns and changes in water demand that can be reasonably expected;
- ensure records contain any departure from normal operating procedure, the reason why, and who authorized this action;
- review and ensure a record of any bypass condition or upset and if this was reported to the Water Security Agency;
- review and ensure all required equipment and instrument calibrations were done and recorded. Records of any other required Quality Assurance/Quality Control (QA/QC) activities should also be examined in a similar manner;

- review records to ensure that continuous disinfection with a free chlorine residual of at least 0.1 mg/l for water entering the distribution system and at least 0.1 mg/l free chlorine residual or at least 0.5 mg/l total chlorine residual throughout the distribution was maintained;
- review records to ensure recording of daily turbidity measurements and that these turbidity measurements were maintained in accordance with the requirements outlined in the Permit to Operate for the waterworks;
- review records to ensure all required bacteriological samples were submitted and review results, and if any appropriate follow up action was conducted;
- review records to ensure all other samples required by the Permit were submitted and review results, and if any appropriate follow up action was conducted; and
- review maintenance activities and any other activities to ensure the normal operations of the waterworks (i.e. line swabbing, hydrant flushing).

Other General Areas for Review:

- results of any inspections, visits, tours or communication with regulators, consultants or the public;
- consumer complaints;
- operator certification and training activities;
- staffing issues;
- occupational health and safety issues;
- operational problems;
- written operational and maintenance plans being followed;
- status of equipment repairs, parts on order, etc.;
- emergency response preparedness; and
- approaching regulatory requirements such as upgrading to meet water quality standards, five-year engineering assessment or annual notice to consumers.

Persons reviewing waterworks operational records in a municipal setting should report and document their findings at a monthly council meeting.

If the review indicates that regulations are not being met and/or the quality of the water from the waterworks has or may have been adversely affected, the findings must be immediately reported to the Water Security Agency.