

AVON MAITLAND DISTRICT SCHOOL BOARD

ADMINISTRATIVE PROCEDURE

NO. 543

SUBJECT: WELL WATER TESTING

Legal References: *Education Act: Section 265 Duties of Principal: Care of Pupils and Property; Section 286 Duties of Supervisory Officers: Supervise Buildings and Property; Ministry of Education Memorandum: Lead Levels in Water in Schools (1988)*

Related References: *Administrative Procedure 170 School Emergency Procedures; AP 410 Environmental Health and Safety; AP 411 Unsafe or Unhealthy Conditions: Reporting of; AP 570 Maintenance, Repair and Care of Property*

1.0 Regular Well Water Testing

- 1.1 This administrative procedure has been established to provide a healthy working environment for Avon Maitland District School Board students and staff members through regular well water testing.
- 1.2 This procedure is also intended to ensure that adverse health effects from contaminated water are minimized.

2.0 Administrative Procedures for Testing Water

- 2.1 This procedure applies to all schools that are on their own well water supply system.
- 2.2 The principal is responsible for ensuring that the procedure is followed.

2.3 Chlorine Residual Tests

- 2.3.1 The person designated by the principal will perform daily residual chlorine tests when school is in session and whenever the school is occupied.
- 2.3.2 The tests will be performed before the beginning of the instructional period of the day, in conjunction with the daily flushing of the system for the possible presence of lead.
- 2.3.3 The tests will be performed at a point furthest from where the raw water enters the building and chlorine is added. If there is more than one distribution loop, the loops will be tested on an alternating basis.
- 2.3.4 When using the chlorine test kit provided, it is important to follow the instructions accompanying the test kit for free residual chlorine only. The person who is testing samples must use a well-lighted background.
- 2.3.5 Form 543A Well Water Testing: Chlorine Residual Log must be completed. At the end of each month a copy of the monthly log is forwarded to the environmental health and safety officer. It is necessary to retain all water tests results, both chlorine residual and microbiological tests, at the school for a period of at least the previous twelve (12) months. Complete records and historical data will be retained at the administration centre by the environmental health and safety officer.

- 2.3.6 The recommended range for free chlorine residual levels is 0.2 ppm to 0.4 ppm. If the sample results are not within this range, the chlorinator must be adjusted accordingly. If any problems are detected with the chlorinator, the person conducting the test must inform the principal and contact the facilities administrator as soon as possible. If adjustments are made, problems are reported or any abnormalities are experienced with the system, the person doing the testing will make appropriate notes in the logbook.

2.4 Microbiological Analysis of Drinking Water

- 2.4.1 The facilities administrator or designate will take water samples as follows:
- At the beginning of each month when school is in session;
 - Three weeks prior to school beginning in September;
 - If flooding has occurred near the wellhead;
 - During periods of high student absenteeism (principal to request);
 - If there is any noticeable change in the taste, colour, odour or clarity of water (principal to request); and
 - After major plumbing or pump repairs/replacements or new construction.
- 2.4.2 The facilities administrator or designate will take samples of raw water and chlorinated water using approved water sampling bottles. The water sample will be taken by following the instructions provided with the bottle and in the Health Unit documents in Form 543B Well Water Testing: Directions for Taking Water Samples. It is important to complete all information on the sample form that accompanies the bottle.
- 2.4.3 The facilities administrator or designate will contact the testing laboratory for the sample results. All results will be forwarded to the schools and the environmental health and safety officer as soon as they are retrieved from the testing laboratory.
- 2.4.4 At the school, the principal or designate will record the microbiological results on Form 543C Well Water Testing: Microbiological Analysis Log. The principal will ensure that all results are posted in a location that is accessible for staff, students and the community.

3.0 Administrative Procedures in the Event of Adverse Water Samples

3.1 Treated or Chlorinated Water

- 3.1.1 Acceptable count levels for treated (chlorinated) water are 0 for total coliform and 0 for E. Coli.
- 3.1.2 If the results for either test in Section 3.1.1 are greater than 0, the water supply will be shut down immediately. The superintendent of business and the superintendent of education (emergencies/operations) or designates will direct the actions required, including but not limited to the use of bottled water, rendering the water fountains inaccessible and posting signs requesting that persons not drink water from the taps, fountains or other points within the distribution system. There will then be flushing and further testing, until the water is safe and secure.
- 3.1.3 In the case of the presence of E. Coli, the superintendent of business, in consultation with Health Unit personnel, may consider school closure.
- 3.1.4 Chlorination and flushing of the entire system will proceed until such times as acceptable tests results, as stated in Section 3.1.1, are obtained from the system. Approval to resume consumption of water from the system must be obtained from the local Health Unit. Form 543D Well Water Testing: Contaminated Water provides a flowchart/checklist.

3.2 Raw Water

- 3.2.1 If the raw water microbiological analysis results are greater than 0 but the treated water results are each 0, the water supply can remain on if the free chlorine residuals remain above the minimum level of .2. At least 2 more raw water samples will be tested and the results assessed.
- 3.2.2 If adverse sample results persist, the facilities administrator, in consultation with the superintendent of business and the Health Unit, will determine if a complete chlorination treatment of the well, pump and distribution system is required. The appropriate actions will then be taken. The principal must be informed of all proceedings and in turn will ensure that staff, students and the community are informed.

3.3 New Construction

In the event of new construction or existing domestic water piping replacement, the new system will be flushed for at least 30 minutes and samples for microbiological testing will be taken and tested to ensure no adverse conditions exist.

4.0 System Maintenance and Training

- 4.1 The facilities administrator will ensure that the treatment system is serviced and receives operational checks by qualified technicians on an annual basis.
- 4.2 The environmental health and safety officer will arrange for the necessary training of new persons required to operate the systems, take tests or samples and will arrange for refresher training of persons involved with these systems, as necessary.