**1.0 Purpose**

 The purpose of this procedure is to detail the steps for testing water for chlorine residue at the source of the water chlorine treatment. This will ensure that there is sufficient chlorine in the water at the start of the distribution line, and along the distribution line with sufficient chlorine at the end user.

**2.0 Background – N/A**

**3.0 Procedure**

Perform a chlorine residual test or take a reading from the automated equipment.

If above or equal to 0.5 mg/L

- go to step A – no other action required

If less than 0.5 mg/L

- go to step B

**Step A**

Chlorine residual is above or equal to 0.5 mg/L:

- no other action required

- maintain normal operation

**Step B**

Do a manual chlorine test to confirm results:

- if above 0.5 mg/L go to step C

- if less than 0.5 but above 0.3 mg/L go to step D

- if less than 0.3 but above 0.2 mg/L go to step E

- if less than 0.2 mg/L go to step F

**Step C**

Repeat the manual chlorine test again:

- if above 0.5 mg/L go to step A

- if below 0.5 mg/L return to step B

Note: Must have 2 consecutive above 0.5 mg/L test results to return to step A

**Step D**

Chlorine residual is less than 0.5 mg/L but above 0.3 mg/L:

- check chlorine equipment and increase chlorine feed rate

- reset chlorine alarm to ring at 0.3 mg/L in case residual continues to drop

Monitor chlorine residuals by repeating manual test:
- if residual falls at between 0.3 and 0.2 mg/L go to step E

- if residual falls to and below 0.2 mg/L go to step F

- if it raises to 0.5 mg/L go to step C and reset the chlorine alarm back to 0.5 mg/L

**Step E**

Chlorine residual is less than 0.3 mg/L but above 0.2 mg/L:

- notify supervisor immediately who will then contact appropriate personnel

- recheck chlorine equipment and increase chlorine feed rate

Monitor chlorine residual by repeating manual test:

- if residual falls to and below 0.2 mg/L go to step F

- if it raises above 0.3 mg/L but below 0.5 mg/L go to step D

- if it raises to 0.5 mg/L go to step C and reset alarm to ring back at 0.5 mg/L

**Step F**

Chlorine residual is below 0.2 mg/L:

- notify supervisor immediately who will contact appropriate personnel

- recheck chlorine equipment and increase chlorine feed rate

Monitor chlorine residuals by repeating manual test

Town Manager/Clerk: Signature: Date: