90th Percentile Calculation – EXAMPLES:

**Systems that collect 5 samples**
1. Order lead results from lowest to highest:
   - No 1: 0.008 mg/L
   - No 2: 0.008 mg/L
   - No 3: 0.008 mg/L
   - No 4: 0.011 mg/L
   - No 5: 0.020 mg/L
   
   PB90 = 0.0155 mg/L

2. Multiply number of samples by 0.9 to determine which sample represents 90th percentile level.
   
   5 samples * 0.9 = 4.5 (average of the 4th and 5th highest sample results).
   
   Average the 4th & 5th samples highest sample results to get 90th percentile value
   
   \[
   \frac{0.011 \text{ mg/L} + 0.020 \text{ mg/L}}{2} = 0.0155 \text{ mg/L}
   \]

3. Compare to lead action level exceedance
   
   PB90 0.0155 mg/L > 0.015 mg/L (Action Level Exceedence)

4. Repeat for copper.

**Systems that collect 10 samples**
1. Order lead results from lowest to highest:
   - No. 1: 0.005
   - No. 2: 0.005
   - No. 3: 0.005
   - No. 4: 0.005
   - No. 5: 0.014
   - No. 6: 0.014
   - No. 7: 0.014
   - No. 8: 0.014
   - No. 9: 0.020
   - No. 10: 0.040

   PB90 = 0.020 mg/L

2. Multiply number of samples by 0.9 to determine which sample represents 90th percentile level.
   
   10 samples x 0.9 = 9th highest sample

3. Compare to lead action level exceedance
   
   PB90 0.02 mg/L > 0.015 mg/L (Action Level Exceedence)

4. Repeat for copper.

**Systems that collect less than 5 samples**
1. PB90 and CU90 are equal to the highest lead and copper levels.