Example 4

Oysters from a restricted harvest area produced the following end-product depurated fecal coliform counts which have been arrayed in ascending order for ease of calculation. In this case, there are 30 samples (n=30) because all 10 lots were under conditional protocol and required 3 end product samples each.

Sample #	FC Count (MPN/100 grams)
1	3.9 (<4)
2	3.9 (<4)
3	3.9 (<4)
4	3.9 (<4)
5	3.9 (<4)
6	3.9 (<4)
7	3.9 (<4)
8	3.9 (<4)
9	3.9 (<4)
10	3.9 (<4)
11	3.9 (<4)
12	4
13	4
14	4
15	4
16	7
17	7
18	12
19	12
20	12
21	16
22	16
23	16
24	22
25	28
26	35
27	35
28	56
29	101 (>100)
30	101 (>100)

In this example, n=30. Applying the formula (n+1)P/100 gives the position of the 90th percentile in the arrayed data: 30+1=31, 31*90=2790/100=27.9. Thus the 90th percentile for a thirty (30) sample array is the 27.9th sample in the array. The value for the 27.9th sample in the array is interpolated by subtracting the value of sample #27 which is 35 from the value of sample #28 which is 56 to give 21. 21 is then multiplied by 0.9 to give 18.9 which is added to the value of sample #27 which is 35 to give 53.9. Rounding this value off to 54, the value for the ninetieth (90$^{th)}$ percentile becomes 54.

Example 5

Once again, oysters from a restricted harvest area produced the following end-product depurated fecal coliform counts which have been arrayed in ascending order for ease of calculation. But in this case, there are 24 samples (n=24) because 6 of the lots were under conditional protocol and required 3 end product samples each, and the other 4 lots, under routine verification, required just one end product sample each.

Sample #	FC Count (MPN/100 grams)
1	3.9 (<4)
2	3.9 (<4)
3	3.9 (<4)
4	3.9 (<4)
5	3.9 (<4)
6	3.9 (<4)
7	3.9 (<4)
8	3.9 (<4)
9	4
10	4
11	4
12	7
13	7
14	7
15	7
16	12
17	12
18	12
19	16
20	28
21	28
22	36
23	101 (>100)
24	101 (>100)

In this example, n=24. Applying the formula (n+1)P/100 gives the position of the 90th percentile in the arrayed data: 24+1=25, 25*90=2250/100=22.5. Thus the 90th percentile for a twenty four (24) sample

array is the 22.5th sample in the array. The value for the 22.5th sample in the array is interpolated by subtracting the value of sample #22 which is 36 from the value of sample #23 which is 101 to give 65. 65 is then multiplied by 0.5 to give 32.5 which is added to the value of sample #22 which is 36 to give 68.5. Rounding this value off to 69, the value for the ninetieth (90$^{th)}$ percentile becomes 69.