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EPA ID # NJ01298 NJ DEP ID # 08012

CHLORINE REDUCTION TEST REPORT

Report # 12-142-1 (Tyent Ultra Filtration System)
Report Date: 05/15/2012
Customer Name: Tyent USA
Site Address: 137 Hurfville Crosskeys, Sewell NJ 08080
Date Sampled: 05/15/2012

EXECUTIVE SUMMARY

A Tyent Ultra Filtration System was tested for reduction of Chlorine following the procedures of the NSF/ANSI standard 42, section 7.3.3. The filter conforms to the Chlorine reduction testing set forth by the NSF standard 42. Passed.

INTRODUCTION

A Tyent Ultra Filtration System was tested for reduction of Chlorine following the procedures of the NSF/ANSI standard 42, section 7.3.3. The filter was challenged with Chlorine water prepared at 2 mg/L of Free Chlorine; the filtration system reduced the free Chlorine by 100%. The filtration system conforms to the Chlorine reduction testing set forth by the NSF/ANSI standard 42. Passed.

REAGENTS, MATERIALS, AND LAB EQUIPMENT

Unico Spectrophotometer 2100 with Data system
Hanna TDS meter Combo pH & EC.
DI water ASTM reagent type 2.
Sodium Chloride.
Sodium Hypochlorite.
Tyent Ultra Filtration System.
    Tyent 1st Filter cartridge: SN Dec.12.2011
    Ultra Filtration 2nd cartridge: SN Dec.19.2011
Electric Pump (Flow Pressure 60 PSI).

PROCEDURE

Connected the feeding chemical electric pump to a Tyent Ultra Filtration System, flushed about 1 gallon of tap water through the filter. Prepared 10 gallons of Chlorine influent water with Chlorine at a concentration of 2.0 mg/L ± 10 %; Table 2 summarized the Influent water properties. Pumped 10 gallons of Influent water through the filter at a flow pressure of less than 125 PSI. Collected the effluent water and analyzed the filtered water for free Chlorine using a suitable EPA method of analysis. The results are summarized in Table 1 below.

RESULTS

Table 1
Tyent Ultra Filtration System Chlorine Test Results

Accumulated Volume	Influent Water	Effluent Water (Ultra Filter System)			
	Chlorine Concentration	Chlorine Concentration	Taste	Odor	% Reduction
0.25 gallons	2.2 mg/L	<0.1 mg/L	Not Detected	Not Detected	100 %
1 gallon	2.2 mg/L	<0.1 mg/L	Not Detected	Not Detected	100 %
5 gallons	2.2 mg/L	<0.1 mg/L	Not Detected	Not Detected	100 %
10 gallons	2.2 mg/L	<0.1 mg/L	Not Detected	Not Detected	100 %

Table 2
Influent Water Properties

Parameter	Reduction Test Water	Target
pH	7.46	7.00 to 8.00
Temperature	17.6 °C	20 ± 3°C
TDS	236 mg/L	200 to 500 mg/L
TOC	≥1.0 mg/L	≥1.0 mg/L
Turbidity	0.36 NTU	< 1 NTU
Free Chlorine	2.2 mg/L	2.0 ± 0.2 mg/L

CONCLUSION:

The Tyent Ultra Filtration System meets the requirements for the NSF/ANSI 42 Chlorine reduction testing section 7.3.3. Passed. Total volume tested: 10 gallons.

Jaime A. Young
Lab Director