



City of Cambridge

Purchasing Department

Cynthia H. Griffin
Purchasing Agent

To: All Bidders
From: City of Cambridge
Date: January 16, 2013
Re: File No. 6004 – Water Department Chemicals - **Addendum No.1**

The following question was submitted.

Question

1. One of the requirements is to have a certified analysis for impurities for each quarter for Sodium hypochlorite & caustic soda. Is this analysis for metals only?

Answer

1. No please see the attached sheet.

All other details remain the same.


CYNTHIA H. GRIFFIN
PURCHASING AGENT

ADDENDUM NO. 1



**Cambridge Water Department
Water Treatment Chemical Purchase Specifications
Sodium Hypochlorite**

A. Composition

1. Sodium hypochlorite shall be delivered within the range of 12 to 15 percent.
2. Sodium hypochlorite shall be clear to yellow in color with no visual evidence of particulates in the product.
3. Sodium hypochlorite shall be delivered between 0.1 and 0.5 weight percent
4. excess sodium hydroxide. Excess sodium hydroxide not within this range may be grounds for rejecting the delivery.
5. Sodium hypochlorite shall have a pH between 11 and 13. A pH not within this range may be grounds for rejecting the delivery.
6. **Upon observance of particulates in the product or the development of a sludge like material in the storage tanks or associated process piping the vendor shall, upon the Production Manager's direction, clean the affected equipment and dispose of the material in accordance with applicable laws and regulations. The cleaning of affected equipment shall be coordinated with the Production Manager in order to ensure continual primary disinfection.**
7. Sodium hypochlorite shall conform to the maximum concentrations listed in Table-B(9).
8. The Certified Analysis for Impurities shall disclose results of the parameters listed in Table B(9).
9. Following the start of the CWD contract, a Certified Analysis for Impurities may be required every 6 months thereafter.

B. General

1. Sodium Hypochlorite shall conform with the ANSI/AWWA B300-04 Standard for Hypochlorites.
2. The delivery time of the shipment should not exceed 72 hours from the time of manufacture.
3. Upon award of the contract, new vendors shall pay for an initial cleaning of all sodium hypochlorite storage tanks and associated process piping. The CWD will not be responsible for any cleaning costs incurred during the contract period.
4. Storage tank cleaning shall be coordinated with the Production Manager.

C. Certified Lab Report

(Table B9)

The Sodium hypochlorite shall conform to the following maximum concentrations. The certified lab report shall contain information on this.

Concentrations in parts per million.

Arsenic	1.5
Barium	2
Cadmium	2
Chromium (total)	2
Cobalt	0.5
Copper	0.2
Iron	1.0
Lead	2
Mercury	0.02
Nickel	0.1
Selenium	2
Silver	2
Total trihalomethanes	150

Chlorate (at time of delivery)	1000
Chlorite (at time of delivery)	1500

D. Delivery Documentation

Certificate of Analysis

1. Date and Time of Manufacture
2. Percent chlorine by weight
3. Excess sodium hydroxide
4. Specific gravity
5. pH.

E. Temperature

The vendor shall guarantee that the temperature of the sodium hypochlorite delivered has never reached a temperature of more than 105°C. Failure to meet this requirement shall be considered adequate justification for rejection of deliveries.

F. Delivery

1. Delivery trucks shall be equipped with a hatch or other suitable means of drawing samples for testing from the tank, not the delivery piping.
2. A Y-strainer or basket strainer shall be applied by the delivery driver. It shall be used during the delivery process to trap sediments from entering the facility piping.
3. Suspended Solids Test:

The CWD reserves the right to perform the "Suspended Solids Quality Test for Bleach using Vacuum Filtration", developed by Dr. Bernard Bubnis of Novatek, A Division of EBB, Inc.

Analysis would be performed on the sample taken out of the tank truck and shall be considered representative of the lot. CWD reserves the right to perform this test periodically as an acceptance criterion upon tank truck arrival.

Product not within the specifications described below may be grounds for rejecting the delivery.

The suspended solids in the sodium hypochlorite delivered under this contract shall be minimized and the shipments delivered shall achieve a filtration time of less than 3 minutes for 1000ml when applying the "Suspended Solids Quality Test for Bleach using Vacuum Filtration".

Vendors not complying with this requirement shall institute corrective actions immediately to minimize suspended solids content.

**Cambridge Water Department
Water Treatment Chemical Purchase Specifications
Sodium Hydroxide**

A. Composition

1. Liquid sodium hydroxide supplied under this standard shall contain a minimum of 50 percent total alkalinity as sodium hydroxide.

B. Unloading

1. Tank trucks used for the delivery of the Sodium Hydroxide shall be fully equipped to unload by pressurizing the tanks with air, and shall also be equipped with valves to control the flow of NaOH into the storage tanks and to enable rapid shut-off if an emergency arises.
2. CWD provides house air for the delivery, delivery truck engine(s) are to be off during deliveries
3. At delivery, the driver will be required to provide a sample from the truckload delivered to be tested by CWD personnel.

C. Certified Analysis for Impurities

1. The sodium hydroxide supplied according to this standard shall contain no soluble material or organic substances in quantities capable of producing deleterious or injurious effects on the health of those consuming water that has been treated properly with the sodium hydroxide.

D. Certificate of Analysis Testing

1. When sampling for certificate of analysis purposes, the vendor must follow ANSI/AWWA B501.
2. The certificate of analysis shall state the specific gravity and percent (%) Sodium Hydroxide.