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STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

April 29, 2005

Antonia C. Novello, M.D., M.P.H., Dr. P.H.
Commissioner
Department of Health
Corning Tower
Empire State Plaza
Albany, NY 12237

Re: Oversight of Public Water Supply
Systems
Report 2003-S-36

Dear Dr. Novello:

According to the State Comptroller's authority as set forth in Article V, Section 1, of the State Constitution; and Article II, Section 8, of the State Finance Law, we audited the Department of Health's oversight of the public water supplies. Our audit covered the period of January 1, 2002, through July 31, 2004.

A. Background

The Department of Health (Department) is responsible for overseeing public water systems. In New York State (State), a public water system is defined as one that provides piped water to the public for drinking or other domestic purposes. The system must have at least 5 service connections or regularly serve a daily average of at least 25 people for at least 60 days a year. Such systems fall into three categories: community (3,346), transient non-community (778), and non-transient non-community (6,662). To operate in the State, all three types of systems must comply with the health and safety requirements in relevant sections of the State Public Health Law and the State Sanitary Code (Code) and also meet the requirements of the Federal Environmental Protection Agency (EPA). Such compliance includes the obligation to submit water samples for routine monitoring and to participate in routine sanitary surveys. In addition, public water supplies may also be required to meet the standards of county or New York City sanitary codes, which, according to Department officials, must be at least as stringent as the State's.

The Department's Bureau of Public Water Supply Protection (Bureau) is responsible for overseeing the State's public water supplies to ensure that suppliers comply with the Code. The Bureau makes policy and provides technical assistance and training, as needed, for staff in four regional offices (Capital District, Central, Metropolitan, and Western) and for local water staff. Regional offices directly oversee 46 local health units (Locals), which comprise 36 county health

departments, 9 Department district offices (responsible for 21 “small” upstate counties), and the New York City Department of Health and Mental Hygiene. Local staff conduct the day-to-day regulation of public water supplies, including reviewing and approving designs and alterations, doing sanitary surveys, receiving and reviewing the results of routine water-sampling, issuing violations, verifying the correction of violations, and taking appropriate enforcement action.

B. Audit Scope, Objectives, and Methodology

We audited the Department’s oversight of the public water supplies for the period of January 1, 2002, through July 31, 2004. The objectives of our performance audit were to determine whether the Department ensures that local staff inspect public water supplies properly for compliance with the Public Health Law, the State Sanitary Code (Code), and Department policies and procedures. We also determined whether the Department ensures local staff take appropriate follow-up and/or enforcement actions when violations are identified.

To accomplish our audit objectives, we reviewed applicable laws, rules, and regulations; obtained and reviewed policies and procedures issued relative to inspection, violation, and enforcement activities; and interviewed Department, regional office, and local officials. We reviewed the files of the Department, Bureau, and local suppliers to determine whether local staff had performed facility inspections in accordance with the Code, received and analyzed water sampling reports, and identified and taken appropriate corrective action on identified public health hazards and violations. For our on-site visits, we randomly selected 11 of the 46 Locals: Albany, Columbia, Genesee, Niagara, Orange, Rensselaer, Suffolk, Tioga, and Westchester counties; and the Hornell and Monticello district offices. Together, the staff of these Locals oversee 2,793 (26 percent) of the State’s public water supplies, constituting a representative geographic cross-section. Of this group, we randomly selected 228 of these suppliers for a review of their inspection, water-sampling, violation-identification, and correction activities for the period of January 1, 2002, through December 31, 2003.

We did our audit according to Government Auditing Standards. Such standards require we plan and do our audit to adequately assess the practices of the Department included in our audit scope. Further, these standards require we understand the Department’s internal control structure and its compliance with those laws, rules and regulations relevant to the operations included in our audit scope. An audit includes examining, on a test basis, evidence, supporting transactions recorded in the accounting and operating records and applying such other auditing procedures as we consider necessary in the circumstances. An audit also includes assessing the estimates, judgments and decisions made by management. We believe our audit provides a reasonable basis for our findings and conclusions.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State, several of which are performed by the Division of State Services. These include operating the State’s accounting system; preparing the State’s financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under Generally

Accepted Government Auditing Standards. In our opinion, these management functions do not affect our ability to conduct independent audits of program performance.

C. Results of Audit

The Department is responsible for protecting the health and safety of water consumers in New York State. Our review found the Bureau, as the primary regulator for the Department, verified that local staff were monitoring public water suppliers by ensuring inspections and water quality sampling were done as required and public health hazards were identified and corrected. When the local staff did not perform as required, the Bureau took appropriate corrective action.

The Department has followed a multi-stage process designed to ensure that local staff carry out their responsibilities effectively. These stages included designing a database system that is used to capture the data needed to monitor the suppliers, appointing field coordinators to work at the regional offices and outlining their responsibilities clearly, requiring Locals to submit plans on a routine basis, and providing field coordinators with data showing progress Locals made toward achieving their goals.

The Department's primary monitoring tool is the Safe Drinking Water Information System (System), a database created by the EPA for capturing data about local activities and water supply status. The Department has expanded the System several times, increasing its capacity and raising the level of accuracy in the data it captures. Department officials told us they intend to continue their efforts to expand and improve the System.

According to Department policy, Locals are to inspect all public water supplies within their jurisdiction. The frequency of such inspections is determined by several factors, including the type of supplier (community versus non-community), the type of disinfection (chlorination or other), and the inspection history of the water supply. Depending on these factors, inspections may be performed according to varying schedules, ranging from once a year to once every five years. We selected a random sample of Locals and suppliers. Our testing of this sample showed that inspections were performed adequately most of the time. During our visits to these Locals, we noted that just 22 (7.21 percent) of 336 required inspections had not been made. In fact, they performed 452 total inspections - 34.52 percent more than required - during our test period of January 1, 2002, through December 31, 2003. Further, we followed up on 16 of these 22 and found these were missed because two Locals were short of staff or had misinterpreted the inspection schedule. In both of these cases, the field coordinators implemented corrective action. The remaining six involved four different localities and does not appear to represent a pattern.

The Code requires suppliers to monitor water quality regularly by taking samples and sending them to an approved laboratory for analysis. The results are to be sent to the Local, which is to maintain them on file. When we examined the files for the 228 suppliers we had randomly selected, we looked for two different types of samples: coliform, which must be measured on a monthly or quarterly basis depending on the type and size of the supplier, and nitrate, which is to be measured annually for all suppliers. We determined the suppliers had submitted all but 196 (1.50 percent) of the 13,058 coliform samples they should have provided. As in the case of inspections, the suppliers had actually submitted more than the required number of samples. The files contained

evidence of 13,718 coliform samples (105 percent of the required total). In the case of nitrate samples, we noted that just 62 (15.23 percent) of the required 407 tests were missing.

The local inspectors are required to report public health hazards and general violations they find during inspections. Public health hazards are serious conditions posing an imminent threat to the health or safety of the public such as inadequate disinfection, deteriorating water quality, inadequate pressure, and failure to exercise care and due diligence in the operation and maintenance of a public water supply. The Code requires all public health hazards be corrected immediately. If one is found during an inspection, the supplier is given the opportunity to make an immediate correction. If that is not possible, other actions are to be taken to ensure the safety of the water for consumers, such as issuing a boil-water advisory or other abatement action until the hazard is corrected. According to Bureau officials, local files for the supply should contain documentation that the identified hazards have been corrected. This documentation can include re-inspection, submission of other materials to the local water staff documenting hazard correction, or notes made by the inspector. We identified 108 hazards that had been noted during the 452 inspections performed during our audit period at the 228 sampled suppliers. We found, in 105 of these cases, the Locals had evidence of either a correction of the hazard or an appropriate follow-up. In the remaining three cases, local officials were actively working with the supplier to make the necessary correction.

Other violations are less severe than public health hazards and do not pose an imminent threat to public health and safety - for example, not posting a conspicuous notice about Code requirements, not maintaining a cross-connection control program, or not maintaining adequate records. Suppliers are required to correct these violations and document that the system has returned to compliance. However, in our review of 94 general violations, we found no evidence of appropriate follow-up or correction for 35 of them. Bureau officials told us they had recently started to use the System's site visit-tracking module for documenting corrective actions. They said they also use the module for noting deficiencies and establishing compliance schedules, even though the corrective action taken is either implied or deferred to the next scheduled site visit.

Regional office field coordinators are responsible for providing oversight, training, and technical assistance to the Locals' water staff. As tools in this monitoring effort, the coordinators refer to annual work plans submitted by the Locals as well as data recorded on the System. In addition, they make quarterly visits to each of the local water supplies in their regions to perform reviews and verify information.

According to Department officials, field coordinators verify local staff conduct required inspections, receive and review required water-monitoring samples, and confirm the accuracy of the System data by comparing them with local file information, and review the reporting of local performance measures. Our audit determined the field coordinators were complying with the requirements in each of these areas. In locations where a local was not fully-compliant, the coordinator had instituted corrective action.

The Bureau uses System data to produce quarterly performance reports called Drinking Water Enhancement Tracking Sheets (tracking sheets). These tracking sheets are sent to the Locals to confirm the completeness and accuracy of the data. The Local make any needed corrections and

send the adjusted tracking sheet to the field coordinator, who is to confirm its accuracy. If the field coordinator's records conflict with the adjusted tracking sheet, the coordinator is supposed to follow up with the local staff to resolve the conflict. Once the field coordinator is confident of the accuracy of the adjusted tracking sheet, it is submitted to the Bureau. This process is one way the Bureau and field coordinators verify local staff have examined all of the public water supplies in their respective jurisdictions that are scheduled for annual inspections, the appropriate surveillance water-sampling and monitoring have taken place, and reports of all public health hazards and violations have been followed up on appropriately. If regional office managers identify exceptions through their analyses of the tracking sheets, they are to contact the responsible local staff and assign regional office staff to visit the local site and facilitate a resolution of the problems.

Recommendations

- 1. The Department should reinforce the requirements for inspections and water quality monitoring samples and continue to work with localities that do not meet the requirements.*
- 2. The Department should continue with plans to use the Safe Drinking Water Information System's site visit-tracking module to document correction of identified general violations.*

We provided draft copies of the matters contained in this report to Department officials for their review and comment. We considered their comments in preparing this report. The Department's response is included as Appendix A of this report.

Within 90 days after the final release of this report, as required by Section 170 of the Executive Law, the Commissioner of the Department of Health shall report to the Governor, the State Comptroller and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

Major contributors to this report were Al Kee, Walter Irving, Todd Seeberger, Brian Krawiecki, Mike Asencio, Jennifer Mitchell, and Natasha Verela.

We wish to thank the management and staff of the Department of Health for the courtesy and cooperation extended to our auditors during this audit.

Yours truly,

David R. Hancox
Director
State Audit Bureau

cc: Robert Barnes, Division of the Budget

 STATE OF NEW YORK
DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

December 30, 2004

David R. Hancox
Audit Director
Office of the State Comptroller
110 State Street
Albany, NY 12236

Dear Mr. Hancox:

Enclosed are the Department of Health's comments on the Office of the State Comptroller's (OSC) draft audit report (2003-S-36) entitled "Oversight of Public Water Supply Systems."

Thank you for the opportunity to comment.

Sincerely,



Dennis P. Whalen
Executive Deputy Commissioner

cc: Mr. Bills
Mr. Burke
Mr. Griffin
Mr. Hart
Mr. Howe
Mr. Reed
Mr. Svenson
Mr. Tramontano
Mr. Van Slyke

Department of Health
Comments on the
Office of State Comptroller's
Draft Audit Report
2003-S-36 on Oversight of
Public Water Supply Systems

The following are the Department of Health's (DOH) comments in response to specific recommendations in the Office of State Comptroller's (OSC) Draft Audit Report 2003-S-36 entitled "Oversight of Public Water Supply Systems".

Recommendation #1:

The Department should reinforce the requirements for inspections and water quality monitoring samples and continue to work with localities that do not meet the requirements.

Response #1:

The Department agrees with the recommendation. Department staff will continue to provide guidance regarding the required frequency of sanitary surveys and track completion of these surveys through the existing database, including quarterly reviews. Staff will continue to reinforce and improve methods of tracking water quality monitoring samples. For both tasks, the performance of local health departments will be reviewed by regional office field coordination staff and, where found to be less than required, they will work with the local health department staff toward actions to meet requirements.

Recommendation #2:

The Department should continue with plans to use the Safe Drinking Water Information System's site visit-tracking module to document correction of identified general violations.

Response #2:

The Department agrees with the recommendation to continue with plans to use the Safe Drinking Water Information System's (SDWIS) site tracking module to document correction of identified general violations. In addition, where appropriate, the Department will encourage use of the compliance business system within SDWIS to improve tracking of actions taken to address these violations.