



The Commonwealth of Massachusetts

Department of Environmental Quality Engineering

Metropolitan Boston - Northeast Region

5 Commonwealth Avenue

Woburn, Massachusetts 01801

DEQE
NOW IS
THE DEPARTMENT OF
ENVIRONMENTAL PROTECTION

Daniel S. Greenbaum
Commissioner

(617) 935-2160

November 2, 1989

City of Cambridge
Office of the City Clerk
Mr. Joseph Connarton
City Hall
Cambridge, Massachusetts 02139

RE: Noncompliance with 310 CMR 22.00

PENALTY ASSESSMENT NOTICE

THE ATTACHED DOCUMENT IS IMPORTANT. FAILURE TO TAKE ADEQUATE ACTION IN RESPONSE TO IT COULD RESULT IN SERIOUS LEGAL CONSEQUENCES.

Dear Mr. Joseph Connarton:

Attached is a Penalty Assessment Notice that the Department is now issuing to the City of Cambridge.

Questions regarding the contents of the attached Penalty Assessment Notice should be directed to: Paul R. Anderson, Chief, Water Supply Division, Department of Environmental Protection, 5A Commonwealth Avenue, Woburn, Massachusetts 01801.

Very truly yours,

Edward P. Kunce
Regional Director

cc: DEP, One Winter Street, Boston, MA 02108 -ATTN: DWS
Cambridge Water Department, 250 Fresh Pond Parkway, Cambridge, MA 02139
ATTN: John Cusack, Superintendent
City Manager, Robert Healy, 795 Massachusetts Avenue, Cambridge, MA 02139

CERTIFIED MAIL

RETURN RECEIPT NO. P 811 843 712

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COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of:)
)
City of Cambridge)

ORDER AND
NOTICE OF INTENT TO ASSESS A
CIVIL ADMINISTRATIVE PENALTY
AP-NE-89-502

I. PARTIES

1. The Department of Environmental Protection (pursuant to Stat. 1989, c. 240, s. 101, ". . .the department of environmental quality engineering shall be known as the department of environmental protection", hereinafter in this document referred to as the "Department") is a duly constituted agency of the Commonwealth of Massachusetts having its principal office at One Winter Street, Boston, Massachusetts 02108, and a regional office located at 5 Commonwealth Avenue, Woburn, Massachusetts 01801.
2. The City of Cambridge ("Cambridge"), by and through the City of Cambridge Water Department, operates a community water system serving residents of Cambridge, Massachusetts. Cambridge serves more than 90,000 persons.

II. STATEMENT OF LAW

3. Massachusetts's Drinking Water Regulations, 310 CMR 22.07, require all community water systems that serve 10,000 or more individuals that add a disinfectant (oxidant) to the water in any part of the treatment process to analyze water samples from their systems for total trihalomethanes on a quarterly basis. The Maximum Contaminant Level (MCL) for total trihalomethanes is .10 mg/l (100 parts per billion (ppb)). Compliance with this MCL is determined based on a running annual average of quarterly samples collected as prescribed.
4. Massachusetts's Drinking Water Regulations, 310 CMR 22.16A and 310 CMR 22.16B, require every community water system which exceeds an applicable MCL to notify persons served by the system of the exceedance by the following methods: (1) inclusion of a notice in the first set of water bills of the system issued after the exceedance; (2) publication on not less than three consecutive days in a newspaper of general circulation in the area served by the system; and (3) furnishing a copy of the notice to the principal radio and television stations serving the area served by the system.



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2. The City of Cambridge ("Cambridge"), by and through the City of Cambridge Water Department, operates a community water system serving residents of Cambridge, Massachusetts. Cambridge serves more than 90,000 persons.

II. STATEMENT OF LAW

3. Massachusetts's Drinking Water Regulations, 310 CMR 22.07, require all community water systems that serve 10,000 or more individuals that add a disinfectant (oxidant) to the water in any part of the treatment process to analyze water samples from their systems for total trihalomethanes on a quarterly basis. The Maximum Contaminant Level (MCL) for total trihalomethanes is .10 mg/l (100 parts per billion (ppb)). Compliance with this MCL is determined based on a running annual average of quarterly samples collected as prescribed.
4. Massachusetts's Drinking Water Regulations, 310 CMR 22.16A and 310 CMR 22.16B, require every community water system which exceeds an applicable MCL to notify persons served by the system of the exceedance by the following methods: (1) inclusion of a notice in the first set of water bills of the system issued after the exceedance; (2) publication on not less than three consecutive days in a newspaper of general circulation in the area served by the system; and (3) furnishing a copy of the notice to the principal radio and television stations serving the area served by the system.

5. Massachusetts's Drinking Water Regulations, 310 CMR 22.22 (9)(d), require public water suppliers to semi-annually test each Backflow Prevention Device installed in their system.
6. Massachusetts's Drinking Water Regulations, 310 CMR 22.22 (10)(b)10, require each public water supplier that serves more than 75,000 persons to submit a Cross Connection Program Plan to the Department by June 1, 1988.

III. STATEMENT OF FACTS

7. Trihalomethanes, including chloroform, bromoform, bromodichloromethane and dibromochloromethane, are formed as by-products of disinfection. All public water suppliers including Cambridge, that add disinfectant to drinking water, are required to sample and analyze their water for trihalomethanes.
8. The effects of trihalomethanes on the human body are presently under study. Tests have found that high doses of chloroform can be carcinogenic to rats and mice. As a result of these tests, the United States Environmental Protection Agency ("EPA") considers chloroform a potential human carcinogen. EPA also believes the other trihalomethanes are implicated as potential carcinogens by association.
9. In passing the federal Safe Drinking Water Act, 42 U.S.C. ss.300f et seq. (the "Act"), Congress mandated that public water suppliers must give notice to consumers whenever their systems violate an applicable maximum contaminant level. The purpose of this notification is to advise consumers of potential or actual health hazards and develop public awareness of the problems facing public water systems to encourage public willingness to support expenditures to solve such problems.
10. In a letter dated October 19, 1988, the Department notified Cambridge that quarterly samples collected for THM analysis during the one year period ending September 30, 1988, showed the running annual average to be 112 ppb, and directed Cambridge to notify the public that it exceeded the MCL for total trihalomethanes, in accordance with 310 CMR 22.16A.
11. In a letter dated December 14, 1988, the Department notified Cambridge that quarterly samples collected for THM analysis during the one year period ending December 31, 1988, showed the running annual average to be 107 ppb, and directed Cambridge to notify the public that it exceeded the MCL for total trihalomethanes, in accordance with 310 CMR 22.16A.
12. In a letter dated March 7, 1989, the Department notified Cambridge that quarterly samples collected for THM analysis during the one year period ending March 31, 1989, showed the running annual average to be 113 ppb, and directed Cambridge to notify the public that it exceeded the MCL for total trihalomethanes, in accordance with 310 CMR 22.16A.

13. In a letter dated July 13, 1989, the Department notified Cambridge that quarterly samples collected for THM analysis during the one year period ending June 30, 1989, showed the running annual average to be 125 ppb, and directed Cambridge to notify the public that it exceeded the MCL for total trihalomethanes, in accordance with 310 CMR 22.16B.
14. In a letter dated August 16, 1989, the Department notified Cambridge that quarterly samples collected for THM analysis during the one year period ending September 30, 1989, showed the running annual average to be 130 ppb, and directed Cambridge to notify the public that it exceeded the MCL for total trihalomethanes, in accordance with 310 CMR 22.16B.
15. Cambridge failed to notify the public of its exceedances of the THM MCL as set forth in paragraphs 8,9,10 above, in violation of 310 CMR 22.16A.
16. Cambridge failed to notify the public of its exceedances of the THM MCL as set forth in paragraphs 11 and 12 above, in violation of 310 CMR 22.16B.
17. A cross connection is a connection between an approved public water system distribution line and other systems or substances of questionable or unknown quality. Some common examples of systems and equipment where cross connections may occur are sewerage systems, industrial fluid systems, metal plating equipment, photoprocessing equipment, laboratory equipment, fire systems, hospital equipment and HVAC systems (e.g. boilers and chillers).
18. All unprotected cross connections represent a direct conduit for contaminants to enter and jeopardize the public water system through backflow. Backflow can occur when the pressure generated within a system or equipment exceeds the pressure of the public water supply lines forcing contaminants into the public water system, and/or when the pressure in public water supply lines drops below atmospheric pressure allowing contaminants to be siphoned back into the public water system through unprotected cross connections. Distribution main breaks and heavy demands on water supply systems are two types of incidents which may cause hydraulic conditions which generate backsiphonage.
19. The Department requires owners of premises where a cross connection exists to install an approved and appropriate backflow prevention device at key locations within their premises. The type and location of device required depends upon the nature of the hazard involved.
20. The Department requires public water systems to perform semi-annual field tests on backflow prevention devices installed within their service areas to ensure these devices are properly functioning and maintained. The Department requires, also, that public water suppliers submit Cross Connection Program Plans to the Department that detail the status of the public water suppliers program for preventing contamination of the public water system by unprotected cross connections.

21. In a Notice of Noncompliance dated July 28, 1988, the Department notified Cambridge of its failure to submit a Cross Connection Program Plan (the "Plan") by June 1, 1988, as required by 310 CMR 22.22(10)(b)10, and directed Cambridge to submit the Plan by August 5, 1988.
22. In a letter dated August 5, 1988, Cambridge informed the Department that the Plan would be submitted prior to September 30, 1988. Cambridge failed to submit the Plan by September 30, 1988.
23. In a meeting with the Department on October 24, 1988, Cambridge stated that the Plan would be submitted by December 1, 1988. Cambridge failed to submit the Plan by December 1, 1988.
24. In a meeting with the Department on August 3, 1989, Cambridge was again informed that the Department had not received the Plan. Cambridge informed the Department that the Plan would be submitted by September 15, 1989. Cambridge failed to submit the plan by September 15, 1989.
25. In 1988, Cambridge stopped performing semi-annual cross connection control device testing in violation of 310 CMR 22.22(9)(d).
26. The Department finds that the violations described in paragraphs 15, 16, and 21 through 24 above, and Cambridge's failure to perform tests on cross connection control devices installed in its system constitute a pattern of noncompliance with Department requirements for which civil administrative penalties should be assessed.
27. The Department deems it necessary to issue the following order to prevent the pollution and secure the sanitary protection of Cambridge's drinking water supply and ensure the delivery of a fit and pure water supply.

IV. DISPOSITION AND ORDER

28. Pursuant to the authority granted to the Department by M.G.L. c.111, s160, and for the reasons set forth above, the Department hereby orders the following:
 - (A) In accordance with the following requirements, Cambridge shall notify the public of: (1) the exceedances stated in paragraphs 10 through 14 above; (2) its failure to give public notice, as stated in paragraphs 15 and 16 above; and (3) its failure to develop and submit to the Department a Cross Connection Plan, as required by 310 CMR 22.22(10) (b) 10:
 - (i) Within five (5) work days of receipt of this Order, Cambridge shall submit a draft public notice to the Department for review and approval (hereinafter the public notice approved by the Department shall be referred to as the "Notice").

(ii) Within fourteen (14) days of the date of the Department's approval of the Notice, Cambridge shall publish the Notice on not less than five (5) consecutive days in a newspaper of general circulation serving Cambridge.

(iii) Cambridge shall include a copy of the Notice in the first set of water bills it issues after the date of the Department's approval of the Notice; provided, however, that if Cambridge does not issue water bills to each of its customers within thirty (30) days of the date of such approval, Cambridge shall deliver a copy of such notice to each of its customers by alternate means approved by the Department within said thirty (30) day period.

(iv) Cambridge shall furnish a copy of the Notice to the principal radio and television stations serving Cambridge within seven (7) days of the date of the Department's approval of the Notice.

(v) Cambridge shall report to the Department in writing all actions taken to comply with paragraphs 28(A) (ii), 28(A) (iii), and 28(A) (iv) above, within ten (10) work days of compliance with each of these requirements.

(B) On or before September 1, 1990, Cambridge shall submit to the Department for review and approval a report prepared by a professional engineer, knowledgeable in public water supply systems, that: (1) assesses Cambridge's current treatment processes; (2) identifies alternative methods of treatment to bring Cambridge into compliance with the MCL for total trihalomethanes, and the estimated capital expenditures associated with each alternative; and (3) includes a recommendation as to the preferred methods of treatment to bring the system into compliance and a statement as to the basis for the recommendation.

(C) On or before December 1, 1989, Cambridge shall submit to the Department for review and approval a schedule for testing each back flow prevention device installed on its system semi-annually as required by 310 CMR 22.22(9).

29. Pursuant to M.G.L. c. 21A, s16, the Department assesses on Cambridge a total civil administration penalty in the amount of thirty one thousand dollars (\$31,000.00). This civil administrative penalty is the sum of the following civil administrative penalties:

(A) the amount of nine thousand dollars \$9,000.00 for the violations described in paragraphs 15 and 16 above;

(B) the amount of nineteen thousand dollars (\$19,000.00) for Cambridge's failure to timely take the actions set forth in the Notice of Noncompliance dated July 28, 1988; and

(C) the amount of three thousand dollars (\$3,000.00) for Cambridge's failure to comply with 310 CMR 22.22 (9) (d).

30. The Department, furthermore, notifies Cambridge of its intent to assess on Cambridge additional civil administrative penalties in accordance with the following schedule, with such penalties to continue to accrue until Cambridge takes the actions described herein:

(A) For each week that Cambridge fails to submit to the Department a Cross Connection Program Plan that complies with the requirements of 310 CMR 22.22(10)(b)10 after the date of issuance of this Order and Notice of Intent to Assess a Civil Administrative Penalty, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).

(i) For each week thereafter that Cambridge fails to submit a Cross Connection Program Plan to the Department, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of two hundred dollars (\$200.00).

(ii) For each week thereafter that Cambridge fails to submit a Cross Connection Program Plan to the Department, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of five hundred dollars (\$500.00).

(iii) For each day thereafter that Cambridge fails to submit a Cross Connection Program Plan, to the Department, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).

(B) For each week that Cambridge fails to comply with any requirement of paragraph 28(A) above, for a period of time extending up to two (2) weeks for each requirement, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).

(i) For each week thereafter that Cambridge fails to comply with any requirement of paragraph 28(A) above, for a period of time up to two (2) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of two hundred dollars (\$200.00).

(ii) For each day thereafter that Cambridge fails to comply with any requirement of paragraph 28(A) above, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).

- (C) For each test required by 310 CMR 22.22(9)(d) that Cambridge fails to perform during calendar year 1990, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).
 - (D) For each week that Cambridge fails to submit the schedule required by paragraph 28(C) above, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).
 - (i) For each week thereafter that Cambridge fails to submit the schedule required by paragraph 28(C) above, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of two hundred dollars (\$200.00).
 - (ii) For each week thereafter that Cambridge fails to submit the schedule required by paragraph 28(C) above, for a period of time extending up to four (4) weeks, the Department assesses on Cambridge a civil administrative penalty in the amount of five hundred dollars (\$500.00).
 - (iii) For each day thereafter that Cambridge fails to submit the schedule required by paragraph 28(C) above, the Department assesses on Cambridge a civil administrative penalty in the amount of one hundred dollars (\$100.00).
31. The written submittals required of Cambridge pursuant to paragraph 28 above shall be delivered to Mr. Paul Anderson at the Department of Environmental Protection, Metropolitan Boston/Northeast Region, Office of Water Supply, 5 Commonwealth Avenue, Woburn, MA 01801.
32. Questions regarding the contents of this Notice should be directed to Mr. Paul Anderson at the Department of Environmental Protection, Metropolitan Boston/Northeast Region, Office of Water Supply, 5 Commonwealth Avenue, Woburn, MA 01801.
33. Pursuant to M.G.L. c.21A, s.16, and 310 CMR 5.00, the Department hereby determines that the deadlines set forth above constitute reasonable time for Cambridge to come into compliance with the Massachusetts Drinking Water Regulations, 310 CMR 22.00.
34. In addition to being an Order, this is also a Notice of Noncompliance issued for purposes of M.G.L. c.21A, s.16, and 310 CMR 5.00.

NOTICE OF RIGHT TO APPEAL
CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

Cambridge is hereby notified that:

Cambridge has a right to an adjudicatory hearing on this civil administrative penalty assessment.

Effective twenty-one (21) days after the date of issuance of this notice, Cambridge shall be deemed to have waived its right to an adjudicatory hearing on this civil administrative penalty assessment, unless Cambridge files with the Department (i.e. the Department receives) a written statement that:

1. does either or both of the following, and does so subject to, and in compliance with, the applicable provisions of the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.00:

a) denies what is set forth in paragraph 7 through 27 above;

b) asserts that the money amount of the civil administrative penalty, as set forth in paragraph 29 above is excessive;

2. clearly and concisely states every point of fact and law Cambridge intends to raise in the adjudicatory proceeding; and

3. is delivered to:

Docket Clerk,
Office of General Counsel
Department of Environmental Protection
One Winter Street, 3rd Floor
Boston, Massachusetts 02108

If Cambridge waives its right to an adjudicatory hearing, Cambridge must pay the full amount of the civil administrative penalty set forth in paragraph 29 above no later than twenty-one (21) days after the date of issuance of this notice. Payment shall be by certified check, cashier's check or money order payable to the order of the Commonwealth of Massachusetts. No other form of payment will be accepted. The nine digit File Number on the first page of this notice (AP...) should be clearly printed on the face of the certified check, cashier's check or money order. Failure to do so could delay the crediting of your payment. Payment shall be mailed to:

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. BOX 4062
BOSTON, MASSACHUSETTS 02211

Cambridge shall be liable to the Commonwealth for up to three times the amount of the penalty, together with costs, interest from the time the penalty became final, and attorneys' fees, including all costs and attorneys' fees incurred directly in the collection of the penalty if Cambridge waives its right to an adjudicatory hearing and does not pay the full amount of the civil administrative penalty as set forth herein within twenty-one (21) days of the date of issuance of this notice.

Additional civil administrative penalties will be assessed on Cambridge in accordance with the schedule set forth in paragraph 30 above if Cambridge's noncompliance continues or is repeated after the date of issuance of this notice. Such additional civil administrative penalties may be assessed in the course of the adjudicatory hearing on this penalty assessment without issuance of any further penalty assessment notices to Cambridge. If Cambridge waives its right to an adjudicatory hearing on this penalty assessment, such additional civil administrative penalties may be assessed in as many additional penalty assessment notices as the Department deems necessary.

NOTICE OF RIGHT TO APPEAL ORDER

Cambridge is hereby further notified that it may appeal this Order. If it intends to appeal, it must file the following within three (3) days of service of this Order: (1) a petition for a jury in Superior Court; and (2) written notice of such appeal with the Department of Environmental Protection. M.G.L. c.111, ss.163 and 147. Furthermore, Cambridge is notified that if it appeals this Order, it must serve a copy of the complaint and summons upon the Attorney General of the Commonwealth in accordance with Rule 4(d) (3) of the Massachusetts Rules of Civil Procedure.

Cambridge is hereby notified that it is required to comply with this Order of the Department while any appeal is pending unless otherwise authorized by the Department.

DEPARTMENT OF ENVIRONMENTAL PROTECTION:

BY: Edward P. Kunce

TYPED NAME: EDWARD P. KUNCE

TITLE: REGIONAL DIRECTOR

DATE: 11-2-1989

4.

F-517

Comm. from Edward P. Junce, Regional Director
Department of Environmental Quality Engineer-
ing, transmitting penalty assessment notice
for the City of Cambridge.

In City Council,

November 13, 1989

*Referred to the
City Manager
Copy sent to City
Manager
11/14/89 @ew*