

US EPA ARCHIVE DOCUMENT



THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE DEPARTMENT

STATE HOUSE BOSTON 02133

(617) 727-3600

MARGARETO PAUL CELLUCCI
GOVERNOR

JANE SWIFT
LIEUTENANT GOVERNOR

July 13, 2000

Mindy S. Lubber, Regional Administrator
United States Environmental Protection Agency,
New England Region
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Dear Ms. Lubber:

In July 1997, the United States Environmental Protection Agency (EPA) promulgated a revised National Ambient Air Quality Standard for ozone based on an eight-hour averaging time. Section 107(d) of the Clean Air Act and current EPA guidance require Governors to submit state recommendations on attainment status and non-attainment area boundaries under the eight-hour ozone standard. I am submitting those recommendations for the Commonwealth of Massachusetts.

Monitored air quality data indicate non-attainment of the eight-hour ozone standard in all areas across the Commonwealth. Therefore, the entire state should be considered non-attainment of the eight-hour ozone standard. I recommend that the state be divided into two non-attainment areas as follows:

1. A Western Massachusetts Non-Attainment Area should consist of Berkshire, Franklin, Hampden, and Hampshire counties;
2. An Eastern Massachusetts Non-Attainment area should consist of Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester counties;
3. The portion of the Boston-Worcester-Lawrence Consolidated Metropolitan Statistical Area (CMSA) that extends into northeastern Connecticut, i.e., the Town of Thompson in Windham County, CT, should be part of a Greater Connecticut Non-Attainment Area;
4. The portion of Bristol County in southeastern Massachusetts that is part of the Providence Metropolitan Statistical Area should be included in the Eastern Massachusetts Non-Attainment Area; and

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5. The portions of New Hampshire and Maine that are part of the Boston-Worcester-Lawrence CMSA should not be part of the Eastern Massachusetts Non-Attainment Area. This part of the recommendation is contingent upon EPA including the New Hampshire and Maine portions of the Boston-Worcester-Lawrence CMSA in a Northern New England Non-Attainment Area that also includes coastal areas of Maine and Portland, ME Metropolitan Statistical Area. If EPA does not include the New Hampshire and Maine portions of the Boston-Worcester-Lawrence CMSA in a Northern New England Non-Attainment Area, I recommend that the Eastern Massachusetts Non-Attainment Area extend northward to the New Hampshire and Maine boundaries of the Boston-Worcester-Lawrence CMSA.

Attachment 1 of this letter specifies the Massachusetts Non-Attainment Areas in EPA's preferred format. Attachment 2 provides justification for diverging from EPA guidance. The justification is discussed for each diverging recommendation, listed according to the above numbers.

If you have any questions, comments or concerns, please contact Commissioner Lauren A. Liss at (617) 292-5856.

Sincerely,



Argeo Paul Cellucci

Attachments

cc: Governor Jeanne Shaheen, New Hampshire
Governor Angus S. King, Jr., Maine
Governor John G. Rowland, Connecticut
Governor Lincoln C. Almond, Rhode Island
Robert Durand, Massachusetts EOE
Lauren A. Liss, Massachusetts DEP
Robert W. Varney, New Hampshire DES
Martha Kirkpatrick, Maine DEP
Arthur J. Rocque, Jr., Connecticut DEP
Jan H. Reitsma, Rhode Island DEM
Susan Studlein, EPA, New England Region

ATTACHMENT 1

Massachusetts Non-Attainment Areas
 for the Eight-Hour Ozone Standard

Massachusetts

Western Massachusetts Non-Attainment Area

- Berkshire County
- Franklin County
- Hampden County
- Hampshire County

Western Massachusetts Non-Attainment Area
Eight-Hour Ozone Data Summary: 1997 - 1999

Monitoring Site	AIRS code	Data Capture ¹ 1997	Data Capture ¹ 1998	Data Capture ¹ 1999	Data Capture ² 1997-1999	Average eight-hour ozone ³ (ppm)	Site Violates Ozone Standard ⁴ ?
Adams	250034002	66%	70%	83%	73%	0.074	N
Agawam	250130003	96%	98%	96%	97%	0.084	N
Amherst	250150103	96%	97%	93%	95%	0.082	N
Chicopee	250130008	95%	93%	96%	95%	0.091	Y
Ware	250154002	97%	96%	93%	95%	0.099	Y

¹ bold indicates 1-year data completeness is less than the 75% requirement.

² bold indicates 3-year data completeness is less than the 90% requirement.

³ bold indicates violation of the ozone standard.

⁴ The level of the eight-hour ozone standard is 0.08 parts per million (ppm). A violation requires the three-year average of the annual fourth-highest daily maximum eight-hour value to be 0.085 ppm or greater.

Date Capture Comments

The Adams site did not meet the data completeness requirements for the annual average in 1997 and 1998, and the three-year average, nor does the site meet the criteria for use in designating an area as attainment or non-attainment. The Adams site is in a remote location on Mount Greylock, and is used to measure ozone at higher levels in the atmosphere.

Massachusetts Non-Attainment Areas
for the Eight-Hour Ozone Standard

Massachusetts

Eastern Massachusetts Non-Attainment Area

- Barnstable County
- Bristol County
- Dukes County
- Essex County
- Middlesex County
- Nantucket County
- Norfolk County
- Plymouth County
- Suffolk County
- Worcester County

**Eastern Massachusetts Non-Attainment Area
Eight-Hour Ozone Data Summary: 1997 - 1999**

Monitoring Site	AIRS code	Data Capture ¹ 1997	Data Capture ¹ 1998	Data Capture ¹ 1999	Data Capture ² 1997-1999	Average eight-hour ozone ³ (ppm)	Site Violates Ozone Standard?
Chelsea	250251003	93%	92%	96%	94%	0.082	N
Easton	250051005	98%	92%	95%	95%	0.088	Y
Fairhaven	250051002	100%	99%	99%	99%	0.091	Y
Lawrence	250090005	95%	99%	96%	97%	0.074	N
Lynn	250092006	97%	95%	97%	96%	0.093	Y
Newbury	250094004	97%	91%	91%	93%	0.087	Y
Truro	250010002	68%	97%	97%	87%	0.095	Y
Waltham	250174003	99%	99%	97%	98%	0.093	Y
Worcester	250270015	97%	98%	96%	97%	0.094	Y

¹ bold indicates 1-year data completeness is less than the 75% requirement.

² bold indicates 3-year data completeness is less than the 90% requirement.

³ bold indicates violation of the ozone standard.

Data Capture Comments

Although the Truro site did not meet the annual data completeness requirement (75% valid days) in 1997 when the site was moved, or the three-year average data capture requirement (90%), according to EPA criteria it can still be used to designate an area as non-attainment, and does violate the standard.

ATTACHMENT 2

Justification for Diverging from EPA Guidance

Three portions of the recommendation for Massachusetts' non-attainment areas under the eight-hour ozone standard diverge from EPA guidance. Below is Massachusetts' rationale for that divergence, listed according to the corresponding recommendation number in the cover letter.

Recommendation #3:

The portion of the Boston-Worcester-Lawrence Consolidated Metropolitan Statistical Area (CMSA) that extends into northeastern Connecticut, i.e., the town of Thompson in Windham County, CT, should be part of a Greater Connecticut Non-Attainment Area.

Discussion:

This moves one town in Connecticut from the Eastern Massachusetts Non-Attainment Area to a Greater Connecticut Non-Attainment Area. It varies from EPA guidance in that the Connecticut town is part of the Boston-Worcester-Lawrence CMSA.

Rationale:

Massachusetts recommends this to simplify administrative SIP requirements. The Connecticut town will still be part of a non-attainment area and subject to similar control requirements. On-going regional coordination will ensure that Massachusetts and Connecticut will likely impose similar control measures to attain the eight-hour ozone standard.

Recommendation #4:

The portion of Bristol County in southeastern Massachusetts that is part of the Providence Metropolitan Statistical Area should be included in the Eastern Massachusetts Non-Attainment Area.

Discussion:

Massachusetts Recommendation #4 is similar to #3, but differs slightly in that Recommendation #4 moves Massachusetts towns that are in the Providence, RI CMSA into the Eastern Massachusetts Non-Attainment Area.

Rationale:

This simplifies administrative SIP requirements. In addition, the large power plants in this part of Bristol County affect the southeastern part of Massachusetts. Massachusetts believes those sources should be included in the Eastern Massachusetts Non-Attainment Area in order to achieve additional ozone precursor reductions for the future eight-hour ozone SIP through Massachusetts' strategies.

Recommendation #5:

The portions of New Hampshire and Maine that are part of the Boston-Worcester-Lawrence CMSA should not be part of the Eastern Massachusetts Non-Attainment Area. This part of the recommendation is contingent upon EPA including the New Hampshire and Maine portions of the Boston-Worcester-Lawrence CMSA in a Northern New England Non-Attainment Area that also includes coastal areas of Maine and the Portland, ME Metropolitan Statistical Area. If EPA does not include the New Hampshire and Maine portions of the Boston-Worcester-Lawrence CMSA in a Northern New England Non-Attainment Area, Massachusetts recommends that the Eastern Massachusetts Non-Attainment Area extend northward to the New Hampshire and Maine boundaries of the Boston-Worcester-Lawrence CMSA.

Discussion:

This recommendation joins the northern, i.e., NH and ME, portions of the Boston-Worcester-Lawrence CMSA with coastal Maine and the Portland, ME metropolitan Statistical Area.

Massachusetts believes that such divergence from EPA guidance is reasonable. It is more sensible to group smaller non-attainment areas in NH and southwestern ME into one larger area for the following reasons:

- These non-attainment areas are significantly and similarly affected by the plume of emissions from the core Boston Metropolitan area and should be one large representative area.
- The meteorological regimes, e.g., southerly winds or coastal sea breezes, for which violations are seen in this area, often do not cause violations in Eastern Massachusetts areas, especially southeastern Massachusetts, and can therefore be considered separately.
- The emissions density in northern New England is lower than in Eastern Massachusetts.
- Virtually no ozone exceedances occur when the wind is bringing northern New England's emissions into Eastern Massachusetts.
- The Northern New England Area should account for its projected high growth rate, e.g., vehicle miles traveled, and should not balance or offset that growth through lower or even negative growth in the Metropolitan Boston area.
- Although there is an economic and emissions link through commuters from this area driving into the Boston area, national low emission vehicle programs and other mobile source strategies will help to minimize those impacts.
- A larger Northern New England Non-Attainment area would be large enough that emission reductions achieved inside that area would affect violations in that area.