

City of Cambridge

The Environment Committee conducted a briefing session on Thursday, April 28, 1994 beginning at eleven o'clock and twenty minutes a. m. in Room 348, the State House, Boston, MA.

Councillor Francis H. Duehay, Chair of the above referenced committee, convened the session and stated that the purpose of this date's proceedings was to receive a presentation from Mr. Gerald L. Hathorne with regards to the Federal Clean Air Act (CAA), its potential impact on employee commuting, and its impact on Cambridge. Mr. Hathorne is a Manager of Corporate Real Estate for Polaroid Corporation and serves on the Cambridge Chamber of Commerce Clean Air Committee.

Present at the session were: Councillor Kathleen L. Born, Vice Mayor Sheila T. Russell, Councillor Timothy J. Toomey, Jr., Ms. Elizabeth Epstein, Director of the Environmental Program, John E. Flynn, Deputy City Clerk and staff from the office of Speaker Charles F. Flaherty, Representative Timothy J. Toomey, Jr., Senator Robert Travaglini, Senator Michael Barrett, Senator Thomas Birmingham and Senator Robert Havern. Also present were Palmer Swanson of Polaroid and Helena Rees of the Cambridge Chamber.

To begin the discussion, Councillor Duehay stated that this briefing's intention was to update members of the Cambridge Legislative Delegation on the long term impacts a gubernatorial decision about state actions to meet the requirements of the CAA could have with regards to the implementation of Cambridge's competitiveness in attracting and retaining businesses. At this time the Chair introduced Mr. Hathorne for his presentation.

Mr. Hathorne stated that his presentation was developed as an educational tool to review internally, and with Chamber members, the federal regulations and their impact. He stated that the materials for his presentation were obtained from a variety of sources and are presented from the stand point of a potentially regulated employer. The same information might be presented differently by environmental advocates, attorneys or regulators. He noted that Cambridge is home to Polaroid's corporate headquarters and that the company has operations in six other communities in Eastern Massachusetts. Employee mobility within this network of facilities is important to the company.

Mr. Hathorne then provided an overview of the purpose and requirements of the Clean Air Act. As part of the 1990 court settlement regarding the parking freeze, the city entered into a memorandum of Agreement with DEP that prescribed the terms for administering the parking freeze in Cambridge during an interim period. During this period the City would develop and propose a long-term program for improving air quality that would replace the interim program. The City Manager convened a twelve person working group comprised of six business or institutional representatives and six residents to work with the City and its consultants to develop such a program. Mr. Hathorne was a member of that group.

Mr. Hathorne provided to those present a Draft Clean Air Regulations Matrix (a copy is attached) and referred to it during his presentation. He stated that the basic goals of the Federal Clean Air Act are to protect human health and the environment, and to provide for more efficient use of energy resources. Mr. Hathorne at this time used a series of overhead transparencies to discuss the following components:

1. **Classification and attainment dates for non-attainment areas.** (Please note: this refers to time frames and milestones for states to meet and maintain national ambient air quality standards (NAAQS) for five priority air pollutants: sulfur dioxide, carbon monoxide, particulate matter of ten microns or less, nitrogen dioxide and ozone).

At present the ozone standard is .120, Boston registered .165 and the Commonwealth is classified as being in "serious" non-attainment for ozone on a scale ranging from "extreme" (Los Angeles) to "marginal", and is required to achieve the NAAQS for ozone by 1999. The carbon monoxide classification for certain areas of the state, including Cambridge, is "moderate".

2. **Ozone Non-attainment**

- ground level ozone (smog), not the hole in the ozone layer
- not directly emitted, but results from interaction of sunlight and certain pollutants - volatile organic compounds (VOC'S) and Nitrogen Oxides (NOX)
- hot weather problem
(Ozone emission reduction requirements - must achieve a fifteen percent reduction in VOC emissions by 1996 and a further nine percent reduction of VOC and/or NOX by 1999.)

3. Emissions Inventory (Base Year 1990)

	<u>VOC</u>	<u>NO_x</u>
Motor Vehicles	29%	45%
Non Road Vehicles	21%	19%
Stationary Sources	6%	33%
Consumer products and other	44%	3%

4. Big Picture Issues

A. *Boundary Conditions*

- New York State has a longer time frame to clean up its air than Massachusetts. (Air pollution in New York is more severe than in Massachusetts.) Because Massachusetts receives New York air, Massachusetts' Monitoring Stations may register New York dirty air.

B. *Savings Clause*

- Requires that states maintain existing programs in their State Implementation Plans (SIPs) or replace with programs of equivalent or greater air pollution reduction value. There are two major categories of programs in SIPs: those directed at mobile sources of pollution (e.g., automobiles, trucks, boats, lawnmowers, etc.) and those directed at stationary sources (e.g., power plants, stacks from manufacturing facilities, dry cleaners, etc.). There is some question regarding the ability to substitute for existing SIP programs in one category of sources with a program affecting the other category.
- Question: Can Cambridge's Vehicle Trip Reduction Ordinance (VTR) replace its parking freeze?

5. Strategies for Mobile Source Emissions.

A. *Affecting Vehicles*

- Stage II nozzles at gas pumps
- Reformulated gasoline
- Enhanced inspection and maintenance program
- Low emission vehicles.

B. Affecting Employee Commuting

Current SIP Program-RideSharing Regulation (310 CMR 7.16) - features:

- Reduce single occupant vehicles (SOV's) 25% over time
- Applies to employers of 250 or more
- 1,000 or more employees-van pools required
- Essentially a voluntary program
- Annual Surveys.

6. Why Target Employee Commuting?

- Same trip origin and destination day to day.
- Trips occur during peak travel time - cause the peak
- Repeat trips render alternatives to SOV's more feasible
- NOTE: employee commuting represents only 25% of total vehicle trips.

7. EPA ECO (Employee Commute Options) Programs

- May replace Ridesharing Regulation
- Applies to employers of 100 or more
- Required in some states (Massachusetts - optional)
- EPA approval assured, if adopted
- Annual Surveys
- Measure: AVO (Average Vehicle Occupancy) and APO (Average Passenger Occupancy)
- AVO is an area wide (city or zone) standard, statistically determined (U.S. Census data, etc.)
- APO is a similar measure but for the affected employer.
- Affected employers must meet the area-wide standard

8. Hypothetical Example - Impact of ECO regulation:

Cambridge - (87,900 employees)	existing AVO (1980)	=	2.01
Harvard - MIT (18,000 employees)	assumed APO	=	3.00
Polaroid			
W. R. Grace			
Arthur D. Little			
Lotus	(5,500 employees) assumed APO	=	1.20

Assume target is to improve AVO by 20%

For Cambridge, target would be 2.01 + 20%

= 2.41

EMPLOYER A: (an employer at the city wide AVO today)

Total Employees Arriving $\frac{1,000}{498}$ = 2.01 Existing APO
total Vehicles

$\frac{1,000}{x}$ = 2.41 Target

x = 415 Target Vehicles

498-415 = 83 Less Vehicles
or 17% reduction

EMPLOYER B: (an employer at an APO of 1.20)

Total Employees Arriving $\frac{2,100}{1,750}$ = 1.20 Existing APO
total Vehicles

$\frac{2,100}{x}$ = 2.41 Target

x = 871 Target Vehicles

1750 - 871 = 879 Less Vehicles
or 50% reduction.

9. The Commonwealth is looking at revisions to its Ridesharing Regulation

A. A breakdown of an Employer Group Proposal:

- Employers of 100 or more at site
- Annual Survey
- Retains SOV (single occupant vehicle) reduction as the measure
- Individual firm targets, not area wide standard

B. *An alternative proposal would breakdown the Commonwealth into Zones and use a zonal standard:*

- Urban 1 parts of Boston and nearby communities, including Cambridge
- Urban 2 Boston - Proper
- Urban 3 Boston - Financial District
- Suburb 1 a suburban zone from Urban 1 out to Route 495
- Suburb 2 a suburban zone outside Route 495
- Suburb 3 Pioneer Valley Planning District

10. *Employer Group Goals in Monitoring Development of State Regulations.*

Ensure that the regulation:

- Is required to meet overall emissions reduction goals
- Contains reasonable, practical and achievable goals or targets.
- Makes allowances for different needs of different types of employers
- Provides flexibility for employers to select from a menu of strategies to meet the goals or targets.

11. *Cambridge VTR Ordinance*

- Employers of 50 or more
- Measure is AER (similar to EPA's AVO/APO rates)
- Pilot Survey first of Volunteer Firms
- Survey will provide date for discussion of how AER should be used
- State may incorporate into a revised statewide Ridesharing Regulation.

12. *Parking Freezes*

- Cambridge - on books since 1975; strengthened in 1990
- Employee parking was exempt until 1990 (court case settlement)
- Employee parking still exempt in Boston
- Does not impact existing operations
- Affects future development
- New off-street spaces require permits from "Bank"

13. State/Conservation Law Foundation - Central Artery Agreement. (Signed December, 1990)

- Requires existing Boston and Cambridge parking freezes to be strengthened
- Requires freeze concept to be applied to other areas
- Requires elimination of employee exemptions.

In concluding his presentation, Mr. Hathorne referred to the Draft Clean Air Regulations Matrix and explained how the various regulations under discussion may interrelate.

Upon completion of the presentation Councillor Duehay opened the floor for comments and inquiries.

Councillor Toomey inquired of Mr. Hathorne a list of the communities to be affected under the State/CLF agreement in the expansion of the freeze.

Mr. Hathorne could not state specifically which communities were to be affected.

Councillor Duehay noted that the number of spaces presently available in Cambridge's parking freeze bank is 200, but could go to 1,000.

Ms. Epstein, in a follow up to the Chair's comments, stated that the city is only authorized to add 1,000 spaces by the DEP by restricting currently unrestricted on-street spaces. This number is also limited by the fact that there does not exist numerous unrestricted parking spaces.

Vice Mayor Russell inquired of the time table for implementation of the Federal Clean Air Act.

Mr. Hathorne, in response, stated that the Commonwealth submitted an initial plan to the Environmental Protection Agency in the fall of 1993. In November, 1994 the next plan is to be submitted covering strategies for further reduction of emissions for the period through 1999 as well as the steps to be taken to maintain attainment of clean air.

Councillor Duehay stated that this meeting is an informational one and that at present the city is not pressing for any particular piece of legislation. He further stated that the Cambridge plan is a sensible one, but neither the City Council nor businesses control the situation. It is in the hands of the Governor and the State and Federal regulatory process.

Councillor Born stated that it is most difficult to change the social habits of individuals vis a vis the use of automobiles in their everyday life. She inquired if there have been discussions allowing for companies to trade parking spots

Ms. Epstein, in response, stated that this subject has been discussed as a possible parking space banking and trading program.

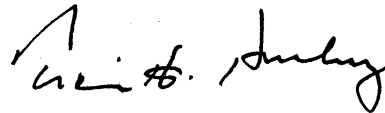
Councillor Toomey inquired of how the legislative delegation could assist the city.

Ms. Epstein, in response, stated that at present no action is required by the State Legislature with respect to any revision of the existing employee commuter program for Massachusetts.

Councillor Duehay concluded the hearing, thanking those in attendance, and urged that the State and City work together to forge a resolution on this matter.

The hearing was adjourned at twelve o'clock and forty minutes p. m.

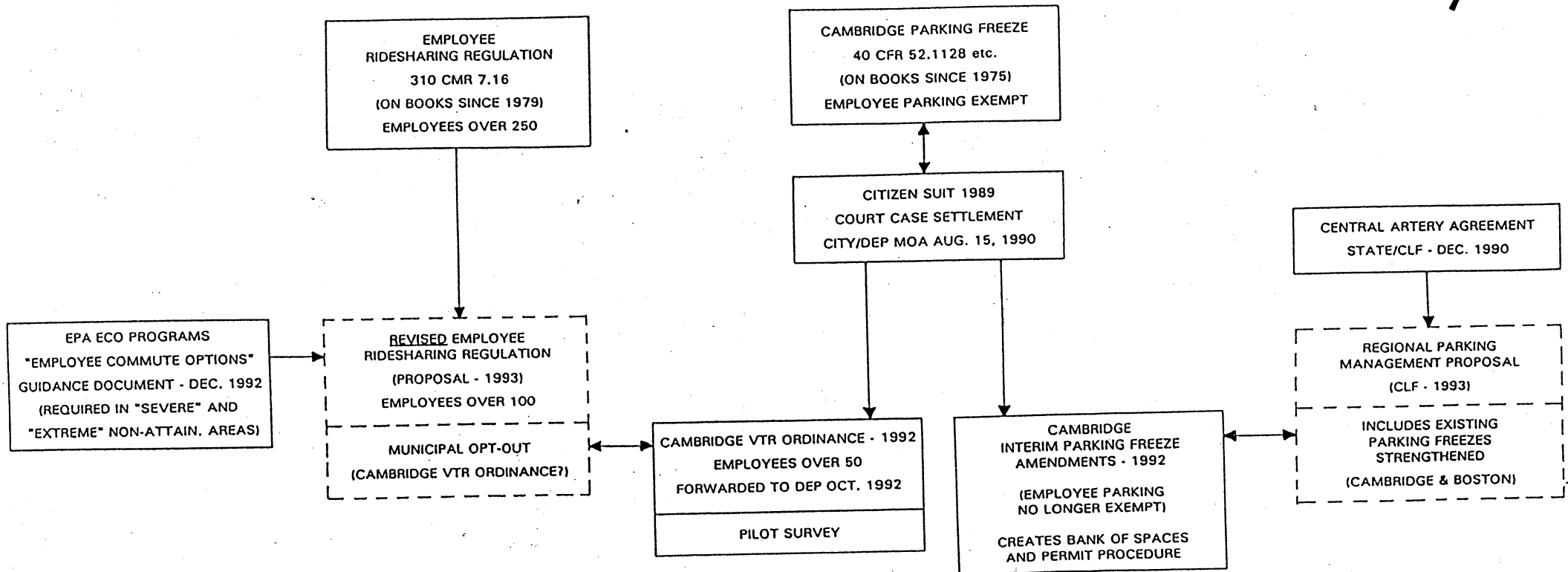
For the Committee,

A handwritten signature in black ink, appearing to read "Francis H. Duehay", written in a cursive style.

Councillor Francis H. Duehay,
Chair

CLEAN AIR REGULATIONS MATRIX

DRAFT



G.L. Hathorne
March 9, 1994

CAMBRIDGE INTENT:

- VTR ORDINANCE TO REPLACE PARKING FREEZE
- VTR ORDINANCE TO BE APPLIED TO REGION
- PARKING TO BE CONTROLLED THROUGH ZONING

3.

COMMITTEE REPORTS

S-421

Report from the Environment Committee for a briefing session held on April 28, 1994 to receive a presentation with regards to the Federal Clean Air Act, its potential impact on employee commuting and its impact on Cambridge.

In City Council,

October 17, 1994

*Report accepted
and placed
on file*