Health Protection Air Quality By-law General Fact Sheet

By-law 2010-035: A by-law to assess and control the health effects of major emissions of fine particulate matter in the Town of Oakville.

Approved February 1, 2010

What is the purpose of the by-law?

- To protect human health from airborne fine particulate matter.
- To collect information on sources of emissions of fine particulate matter.
- To regulate major emitters of fine particulate matter in absence of federal or provincial regulation.
- To designate any major emission of fine particulate matter, presenting unacceptable risks to human health, as a "public nuisance."
- To reduce, over time, levels of fine particulate matter in the town's ambient air.

What is fine particulate matter? Why should the town regulate it?

- Fine particulate matter is airborne particles less than 2.5 micrometres in size. They are listed as a toxic substance by the Canadian Environmental Protection Agency.
- An abundance of scientific and government studies showing serious, fatal health effects from human inhalation of airborne fine particulate matter.
- **80 premature deaths** in Oakville can be attributable to fine PM pollution every year based on annual concentration of 10 micrograms per cubic metre (ICAP).
- Right now, there are no federal or provincial regulatory standards for fine particulate matter emissions or ambient levels.

What authority does the town have to regulate fine particulate matter?

- The town has municipal powers outlined in the *Municipal Act, 2001* to pass by-laws about "health, safety, and well-being", to prohibit/regulate "public nuisances" and to decide what constitutes a public nuisance.
- The town's by-laws cannot "conflict" or frustrate the purpose of provincial law.

For more information...

For supporting documentation on the Health Protection Air Quality By-law 2010-035 including staff reports, presentations and a copy of the by-law refer to the town's website or contact Cindy Toth, Director, Environmental Policy:

- Website: http://www.oakville.ca/healthairqualitybylaw.htm
- Email: ctoth@oakville.ca
- Tel: 905.845.6601, ext 3299

Legislative reform has also followed the *Croplife* case. In 2006, the Provincial government further amended the *Municipal Act*. The amendments specifically locate the power to regulate the "health, safety and well-being of persons" in the municipal "spheres of jurisdiction", and advise that both upper-tier and lower-tier municipalities may pass by-laws in this area unless such a by-law would contravene a specific rule set out in the Act for addressing spheres of jurisdiction.

On the issue of conflicting laws, the landmark 2001 decision of the Supreme Court of Canada, *114957 Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)* considered the 1981 Ontario litigation, but concluded that there is a legal conflict only if it is "impossible" to comply with a by-law and any applicable provincial (or federal) law. There is no conflict merely because a by-law is more restrictive than such laws since it is possible to comply with the more restrictive by-law as well as the other laws.

On the basis of these judicial and legislative developments, the town has broad power to pass by-laws respecting "health, safety, and well-being" of its residents.

Based on the current *Municipal Act, 2001,* and other legal precedents, the town also has broad power to pass by-laws respecting public nuisances. This Act advises that any municipality may "prohibit and regulate with respect to public nuisances", including matters that could, in the opinion of council, become public nuisances. It also advises that so long as the opinion of council is arrived at in good faith, it is not subject to judicial review.

What are the key components of the by-law?

Town by-law 2010-035 has the following ten components:

1. It focuses on the contaminant posing the greatest danger to human health – namely $PM_{2.5}$ (hereafter, "fine PM");
2. It regulates not only the direct emissions of fine PM, but also the fine PM resulting from emissions of "precursor" substances, substances which mix together in the atmosphere to create additional quantities of fine PM;
3. It has a reporting requirement that will eventually apply to most emitters of fine PM and precursor pollutants;
4. It has an approval requirement that will apply to all major emitters of fine PM and precursor pollutants;
5. It has a five-part phase-in:
   (1) Initially, as of February 1, 2010, it applies only to proposed "major emitters" of fine PM and precursor pollutants, and requires that each proposed major emitter obtain town approval for the emissions;
   (2) After 6 months, it will apply to all existing emitters of fine PM and precursor pollutions who also have a provincial certificate of approval for air emissions, to provide a one-time report to the town on emissions of fine PM and specified precursor pollutants;
   (3) After 1 year, it will apply to all existing major emitters of fine PM and precursor pollutions who also have a provincial certificate of approval for air emissions, and require each such emitter to obtain town approval for their emissions;
   (4) After not less than one year, it will apply to all existing emitters of fine PM and precursor pollutions who do not have a provincial certificate of approval for their air emissions, and require each to provide a one-time report to the town on its emissions of fine PM and specified precursor pollutants; and

(5) After not less than two years, it will apply to all existing major emitters of fine PM and precursor pollutions who do not have a provincial certificate of approval for air emissions, and require each such emitter to obtain town approval for its emissions.

6. For each major emitter, the town approval process requires the emitter to submit, when applicable, the following information:
   (a) Mapping that would illustrate the extent of the affected airshed, as well as the concentration of fine PM due to the proposed or existing major emitter;
   (b) Mn evaluation, using an appropriate atmospheric dispersion model that includes the capacity to address atmospheric chemistry, of the air concentrations across the affected airshed of average and worst-case daily and annual levels of fine PM:
      i) predicted to be emitted by the major emitter; and/or
      ii) in the existing ambient air;
   (c) An assessment, using the ICAP model and range of human health impacts assessed by this model, of the risks to public health (i.e., communities or populations) associated with:
      i) predicted ambient levels of fine PM resulting from the major emission, and
      ii) existing ambient levels of fine PM in the affected airshed;
7. The town approval process for major emitters involves an application fee of $25,000 to cover the costs to the town of processing the application and, in particular, the retainer of a qualified, independent peer reviewer to review all aspects of the submitted application for approval;
8. The town approval process for major emitters will establish a limit on ambient air concentrations of fine PM that is based on health risks to people within the affected airshed, and will prohibit existing or future sources of emissions that present an unacceptable degree of health risk; also, such emissions will be considered, in the opinion of council, to be a public nuisance. However, the Town Council has the power to overrule any limit if, following input from the local medical officer of health, the Council concludes that a less strict limit is in the public interest;
9. It makes all approval process assessments and related documents publicly available to affected residents and interested persons in advance of any town decision-making, and also makes provision for affected residents and other interested parties to comment on such assessments and make oral submissions to the Town Council before town decisions; and
10. It requires all approved major emitters to prepare and submit to the town a report, for a minimum of the first three years of operations, on actual emissions from the emitter.

For more information...

For supporting documentation on the Health Protection Air Quality By-law 2010-035 including staff reports, presentations and a copy of the by-law refer to the town's website or contact Cindy Toth, Director, Environmental Policy:

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Health Protection Air Quality By-law Fact Sheet for Businesses

By-law 2010-035: A by-law to assess and control the health effects of major emissions of fine particulate matter in the Town of Oakville.

Approved February 1, 2010

What is the purpose of the by-law?

- To protect human health from airborne fine particulate matter.
- To collect information on sources of emissions of fine particulate matter.
- To regulate major emitters of fine particulate matter in absence of federal or provincial regulation.
- To designate any major emission of fine particulate matter, presenting unacceptable risks to human health, as a "public nuisance."
- To reduce, over time, levels of fine particulate matter in the town's ambient air.

What is fine particulate matter? Why should the town regulate it?

- Fine particulate matter is airborne particles less than 2.5 micrometres in size. They are listed as a toxic substance by the Canadian Environmental Protection Agency.
- An abundance of scientific and government studies showing serious, fatal health effects from human inhalation of airborne fine particulate matter.
- **80 premature deaths** in Oakville can be attributable to fine PM pollution every year based on annual concentration of 10 micrograms per cubic metre (ICAP)
- Right now, there are no federal or provincial regulatory standards for fine particulate matter emissions or ambient levels.

What authority does the town have to regulate fine particulate matter?

- The town has municipal powers outlined in the *Municipal Act, 2001* to pass by-laws about "health, safety, and well-being", to prohibit/regulate "public nuisances" and to decide what constitutes a public nuisance.
- The town's by-laws cannot "conflict" or frustrate the purpose of provincial law.

How does the by-law affect local businesses?

- The by-law applies to any facility located in the town that emits at least one health risk air pollutant.*
- The by-law includes a reporting and an approval process. The reporting process requires existing or proposed owners or operators to advise the town in writing of the emission source(s), and the average and worst case rates of daily and annual emissions of any emitted health risk pollutant facility wide.
- For non-major emitters, there is no cost to submit reports to the town.
- The by-law does not apply to facilities that emit only a negligible quantity of any health risk air pollutant.

* "Health risk air pollutant" and other terms are defined in the by-law.

What is a major emitter? How do regulations vary for major emitters?

- According to the by-law, a facility is considered a major emitter if its emissions exceed at least one of the thresholds for the health risk air pollutants.*
- The town estimates that there may be 20-30 major emitters in Oakville who would be subject to a higher reporting requirement and approval process.
- For the approval process, major emitters will need to submit to the town a number of items including airshed mapping, the concentration of fine PM, as well as evaluations and assessments of the risks to human health associated with fine particulate matter emissions.
- The town approval process for major emitters involves an application fee of $25,000 to cover the costs to the town of processing the application and, in particular, the retainer of a qualified, independent peer reviewer to review all aspects application. Guidance documents are in process.

Will the implementation of the by-law be phased-in?

Yes, the town will phase-in the implementation of the by-law:

1. As of February 1, 2010, the by-law applies only to **proposed "major emitters"** of fine PM and precursor pollutants, and requires that each proposed major emitter obtain town approval for the emissions;
2. After 6 months, it will apply to all existing emitters of fine PM and precursor pollutions who also have a **provincial certificate of approval** for air emissions, to provide a one-time report to the Town on emissions of fine PM and specified precursor pollutants;
3. After one year, it will apply to **all existing major emitters** of fine PM and precursor pollutions who also have a provincial certificate of approval for air emissions, and require each such emitter to obtain town approval for their emissions;
4. After not less than one year, it will apply to all existing emitters of fine PM and precursor pollutions who **do not have** a provincial certificate of approval for their air emissions, and require each to provide a one-time report to the Town on its emissions of fine PM and specified precursor pollutants; and
5. After not less than two years, it will apply to all existing major emitters of fine PM and precursor pollutions who do not have a provincial certificate of approval for air emissions, and require each such emitter to obtain Town approval for its emissions.

For more information...

For supporting documentation on the Health Protection Air Quality By-law 2010-035 including staff reports, presentations and a copy of the by-law refer to the town's website or contact Cindy Toth, Director, Environmental Policy:

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* Permitted levels are included in the by-law.

OAKVILLE

THE CORPORATION OF THE TOWN OF OAKVILLE

BY-LAW NUMBER 2010-118

A by-law to amend By-law 2010-035, a by-law to assess and control the health effects of major emissions of fine particulate matter in the Town of Oakville

COUNCIL ENACTS AS FOLLOWS:

1. By-law 2010-035 is amended by deleting clause (i) of the definition of "facility" and replacing it with the following:

   "(i) a residential site that contains less than 25 dwelling units; or,"

2. By-law 2010-035 is further amended by deleting clause 19(2)(a)(ii) and replacing it with the following:

   "(ii) after six months from the passage of this by-law, the operation of this section shall remain suspended, except for those persons who have a certificate of approval for air emissions under s. 9 of the Environment Protection Act, and for such persons, the information required by s. 4 shall be submitted to the Town not later than the lifting of the suspension of s. 4 pursuant to s. 19(2)(a)(iii);"

PASSED this 1st day of June, 2010

Rob Burton MAYOR

Cathie L. Best CLERK

OAKVILLE

Appendix A

THE CORPORATION OF THE TOWN OF OAKVILLE

BY-LAW NUMBER 2010-035

A by-law to assess and control the health effects of major emissions of fine particulate matter in the Town of Oakville

WHEREAS s. 11(2) of the *Municipal Act, 2001*, as amended ("the Act"), permits municipalities to pass by-laws respecting the health, safety and well-being of persons;

WHEREAS s. 128 of the Act permits municipalities to prohibit and regulate with respect to public nuisances, including matters that, in the opinion of council, are or could become or cause public nuisances;

WHEREAS the Province of Ontario and the Government of Canada have gathered research and prepared reports on fine particulate matter and its serious harm to human health, but have not passed air regulations that focus on fine particulate matter, evaluate together ambient conditions and new emissions, assess the human and public health impacts of such conditions, or limit cumulative concentrations; and

WHEREAS The Corporation of the Town of Oakville considers it appropriate and in the public interest to prevent or reduce adverse effects to its residents and public health due to fine particulate matter in the Town of Oakville;

COUNCIL ENACTS AS FOLLOWS:

DEFINITIONS

1. In this by-law, the following definitions apply:

"affected airshed" means the airshed receiving any increase in concentrations of fine particulate matter of more than 0.2 micrograms per cubic metre, expressed as an annual average, due to a major emission;

"assessment" means a health-risk assessment of the range of public health effects, including mortality and morbidity, using:

(a) Version 3.0 of the Illness Cost of Air Pollution ("ICAP") model developed by the Canadian Medical Association; or

(b) such other health-risk methodology as the Town deems acceptable, following input from a qualified peer reviewer;

"facility" means a building, structure, equipment and other stationary items on a site or at a location that is under common operation, management, and/or control, but does not include:

(i) a site that contains less than 25 dwelling units; or,

(ii) a commercial, business or institutional site or location that is less than 0.1 ha in size;

"fine particulate matter" means airborne particulate matter that is less than or equal to 2.5 microns in aerodynamic mass median diameter ("$PM_{2.5}$");

"health-risk air pollutant" means fine particulate matter and/or one or more precursor pollutants;

"major emission" means an emission from a facility into the air of a health-risk air pollutant that exceeds at least one of the following thresholds:

(a) for directly emitted fine particulate matter, more than 300 kilograms per year;
(b) for volatile organic compounds, more than 10,000 kilograms per year;
(c) for nitrogen oxides (as NO_2 equivalent), more than 20,000 kilograms per year;
(d) for sulphur dioxide, more than 20,000 kilograms per year; or,
(e) for ammonia, more than 10,000 kilograms per year;

"negligible quantity of any health-risk air pollutant" means, in respect of directly emitted fine particulate matter, the emission of less than 1 kilogram of fine particulate matter in total per year, and in respect of precursor pollutants, the emission of less than 10 kilograms of any precursor pollutant in total per year;

"precursor pollutant" means a pollutant which, when emitted into the air, participates in atmospheric mixing or chemical transformation, or both, to produce fine particulate matter, including:

(a) nitrogen oxides;
(b) ammonia;
(c) sulphur dioxide;
(d) volatile organic compounds; and,
(e) such other pollutants as are specified by the Town;

"public health effect" means the risk of an adverse impact on public health within the affected airshed, derived from chronic exposure to $PM_{2.5}$;

"significant" means, in relation to the assessment of a public health effect,

(a) an increased rate of premature non-traumatic mortality of one or more premature deaths per one hundred thousand population per annum, based on annual exposure; or
(b) such other outcome as from time to time Council may direct;

"Town-approved atmospheric dispersion model" means an air dispersion model that has the capacity to address fine particulate matter and atmospheric chemistry and, in particular, the effects of emissions of precursor pollutants on the production of fine particulate matter in the atmosphere, and which is:

(a) acceptable to the Town, following input from a qualified peer reviewer; or,

(b) specified by the Town;

"volatile organic compounds" means:

(a) the compounds designated as Item 65 on Schedule 1 to the *Canadian Environmental Protection Act, 1999*; or

(b) the compounds as determined by the Town;

"Town" means The Corporation of the Town of Oakville.

PART I – PURPOSES

2. The purposes of this by-law are:

(a) to take measures, including collecting information, implementing regulatory controls and monitoring, to protect human health from fine particulate matter;

(b) to designate specified sources of major emissions of health-risk air pollutants as public nuisances; and,

(c) to encourage public participation in Council decision-making on major emissions of health-risk air pollutants.

(d) to reduce over time the levels of fine particulate matter in the ambient air of the Town.

PART II – APPLICATION OF THE BY-LAW

3. This by-law applies to any person who owns or operates a facility located in the Town that may emit at least one health-risk air pollutant into the air.

PART III - REPORTING

4. (1) Subject to subsection (3), where a proposed or existing facility may emit at least one health-risk air pollutant into the air, its owner or operator shall advise the Town in writing forthwith of the emission source or sources, and provide the average and worst-case rates of daily and annual emissions of any emitted health-risk air pollutant facility-wide.

(2) Where a person proposes a change to a facility or its operation, and such change may change the rates referenced in subsection (1) of any emitted health-risk air pollutant, its owner or operator shall advise the Town of the change in writing forthwith.

(3) This section does not apply to an owner or operator of a facility that emits only a negligible quantity of any health-risk air pollutant.

(4) For the purposes of addressing the reporting obligation in this section, an owner or operator may, unless the Town provides otherwise, include in its submission to the Town a copy or part of a copy of any completed form with relevant information filed pursuant to the National Pollutant Release Inventory or the Ontario Toxics Reduction Act, 2009.

(5) The Town shall post on its web-site a current list of all facilities reporting under this section, their emitted rates, and whether the facility is a source of a major emission.

PART IV – REQUIREMENTS FOR TOWN APPROVAL

Proposed Facilities

5. (1) Where a person proposes to locate a facility in Oakville that may cause a major emission to the air, that person shall, as early as practicable during the planning for such facility and, in any event, prior to any construction of such facility, obtain a facility-specific approval of its proposed air emissions.

(2) Prior to receiving an application, the Town encourages a potential applicant to consult with the Town to receive input on whether the facility is likely to be a source of a major emission and, if so, on appropriate methods of addressing application requirements.

(3) The application shall include payment of the prescribed fee and submission of the following information:

(a) facility description: a description of the facility, including all sources of emissions that may contribute to a major emission, the average and worst-case rates of daily and annual emissions during operations, and the operating conditions that give rise to average and worst-case emissions;

(b) evaluation: an evaluation, using a Town-approved atmospheric dispersion model, of the air concentrations across the affected airshed resulting from average and worst-case annual emissions

of:

(i) the predicted levels of fine particulate matter emitted by the proposed facility due to direct emissions and secondary formation from facility-emitted precursor pollutants;

(ii) the existing levels of fine particulate matter in the affected airshed; and,

(iii) (i) and (ii) combined.

(c) mapping: mapping that illustrates:

(i) the extent of the affected airshed, considering predicted average and worst-case annual emissions of fine particulate matter due to the proposed major emission, in such formatting as deemed appropriate by the Town; and,

(ii) within the affected airshed, the average and worst-case annual ambient concentrations of fine particulate matter, as contour plots, at one microgram per cubic metre intervals, or at such formatting as deemed appropriate by the Town;

(d) assessment: an assessment of the public health effects associated with:

(i) the predicted levels of fine particulate matter in the affected airshed resulting from the major emission; and

(ii) the existing levels of fine particulate matter in the affected airshed; and,

(e) appraisal: an appraisal of any measures available to the facility that would reduce risks to public health, including the costs and other implications of implementing such measures.

Existing Facilities

6. (1) (a) Where a person owns or operates a facility in Oakville that causes a major emission to the air, that person shall obtain a facility-specific approval of its air emissions.

(b) Where a person owns or operates a facility in Oakville that causes a major emission to the air, and proposes a change that will increase the major emission, that person shall obtain a facility-specific approval of its air emissions, or amendment to an existing approval, before implementing any change that will cause such increase to its emissions.

(2) Prior to receiving an application, the Town encourages a potential applicant to consult with the Town to receive input on whether the facility is likely a source of a major emission and, if applicable, on appropriate methods of addressing application requirements.

(3) The application shall include payment of the prescribed fee and submission of the following information:

(a) facility description: a description of the facility, including all sources of emissions that may contribute to a major emission, the average and worst-case rates of daily and annual emissions during operations, and the operating conditions that give rise to average and worst-case emissions;

(b) evaluation: an evaluation, using a Town-approved atmospheric dispersion model, of the air concentrations within the affected airshed resulting from average and worst-case annual emissions of:

(i) the estimated levels of fine particulate matter emitted by the existing facility due to direct emissions and secondary formation from facility-emitted precursor pollutants; and,

(ii) the existing levels of fine particulate matter in the affected airshed;

(c) mapping: mapping that illustrates:

(i) the extent of the affected airshed, considering estimated average and worst-case annual emissions of fine particulate matter due to the proposed major emission, in such formatting as deemed appropriate by the Town; and,

(ii) within the affected airshed, the average and worst-case annual ambient concentrations of fine particulate matter, as contour plots, at one microgram per cubic metre intervals, or at such formatting as deemed appropriate by the Town;

(d) assessment: an assessment of the public health effects associated with:

(i) the estimated levels of fine particulate matter in the affected airshed resulting from the major emission; and

(ii) the existing levels of fine particulate matter in the affected airshed; and,

(e) appraisal: an appraisal of any measures available to the facility that would reduce risks to public health, including the costs and other implications of implementing such measures.

PART V – TOWN DECISION-MAKING PROCESS

Peer Review of the Application

7. Upon receipt of an application for approval and the prescribed fees, the Town shall identify a person with appropriate expertise to peer review the submitted application, and, subject to s. 8(2), shall carry out a two-phase peer review process within 120 days.

Peer Review Phase (1): Determination Whether the Application is Complete

8. Phase I shall involve the following process:

(1) Upon receipt of the documents submitted by the applicant, the peer reviewer shall determine whether the application is complete. Where the peer reviewer determines that the application is complete, the peer reviewer shall proceed forthwith to Phase (2) of the process.

(2) Where the peer reviewer determines that the application is not complete, the Town shall advise the applicant of this determination forthwith. Upon such determination, the application is suspended and the calculation of Town time is suspended. The suspension shall last until the applicant submits additional information to the Town, which then restarts the calculation of Town time and requires the peer reviewer to assess again whether the application is complete.

(3) If the applicant fails to obtain a determination that the application is complete within six months of submitting the application, the Town shall close the application and return all original documents to the applicant.

Peer Review Phase (2): Review of the Complete Application

9. Phase (2) shall involve the following process:

(1) Following a determination that an application is complete, the peer reviewer shall proceed to review the application and, in particular, its facility description, evaluation, mapping, assessment, and appraisal components.

(2) The peer reviewer shall, within 30 days of determining an application is complete, produce a peer review report not to exceed 10 pages, excluding appendices, which sets out, in concise, non-technical language the results of the review on items 3(a) to (e), of section 5 or 6 of this by-law.

(3) Following receipt of the peer review report, the Town staff shall forthwith examine the review and, where satisfied that the review is complete, forward the review to the applicant for comment.

(4) Upon receipt of the peer review report, the applicant shall have 30 days to provide written comment on the review to the Town. If the applicant does not return written comment within 30 days, the application shall be considered incomplete and the Town shall close the application and return all original documents to the applicant.

(5) Upon the conclusion of the 30-day applicant comment period, the Town staff shall forward any comment to the peer reviewer for any addendum review prepared forthwith, not to exceed 3 pages in length, excluding appendices, which shall be prepared by the peer reviewer within 30 days of receiving the applicant's comments. This step concludes this Phase of the process.

(6) Any failure by the Town to comply with any specified time frames in this by-law shall not eliminate the need for approval or invalidate any approval given under this by-law.

Council Consideration of the Application

10. Following the completion of the peer review process, the Town shall engage in public and agency consultation on the application, using the following process:

(1) The Town shall forthwith:

(a) post a notice of public consideration of the review by the Town Council, with such notice specifying a Council meeting date no

less than 30 days from the posting of notice, and with such notice posted on the Town website and in a newspaper of general circulation in the Town;

(b) post on its web-site the complete application, and the peer review report(s), and any comments by the applicant; and,

(c) circulate a request for comment to the Halton Region Health Department, and such other persons or agencies as the Town may determine are appropriate, and thereafter post received comments on its website.

(2) At the scheduled meeting, Council shall hear any delegations and consider and decide upon the application pursuant to the provisions of the Town's procedure by-law.

11. (1) At the conclusion of the Council meeting hearing the application, or as soon thereafter as Council may determine, Council shall make a decision on the application.

(2) In making a decision on the application, Council shall consider whether the major emission has a significant public health effect in the Town.

(3) In considering whether the major emission has a significant public health effect, Council shall have before it a complete application, the related peer review, any additional information provided by the applicant, any written input received from the Halton Region Health Department, and any other information received from other persons or agencies as deemed appropriate.

Town Decision-making on the Application: Proposed Facilities

12. Where, in relation to an application for an approval of a proposed facility that may cause a major emission, Council has before it the required information, and all required land use approvals have been obtained for the proposed facility, Council shall make one of the following decisions, as applicable:

(a) Where, following consideration of the application, Council concludes that the major emission of the proposed facility is not likely to cause a significant public health effect in the Town, Council shall approve the application, subject to such conditions as Council may deem appropriate; or,

(b) Where, following consideration of the application, Council concludes that the major emission of the proposed facility is likely to cause a significant public health effect in the Town, Council shall:

(i) refuse to approve the application and, in such case, also decide that in its opinion the major emission of the proposed facility constitutes a public nuisance; or

(ii) approve the application on the basis that the public interest favours allowing the major emission of the proposed facility to occur, subject to such conditions as Council may deem appropriate.

Town Decision-making on the Application: Existing Facilities

13. Where, in relation to an application for an approval of an existing facility which causes a major emission, Council has before it the required information, Council shall make one of the following decisions, as applicable:

(a) Where, following consideration of the application, Council concludes that the major emission of the facility is not likely to cause a significant public health effect in the Town, Council shall approve the application, subject to such conditions as Council may deem appropriate;

(b) Where, following consideration of the application, Council has before it an application that does not meet paragraph (a), but proposes an overall 25 percent reduction in health-risk air pollutants over the next five years, and the peer review agrees the proposed reduction is achievable, Council shall approve the application, and authorize a five-year approval of the facility causing the major emission, subject to such conditions as Council may deem appropriate; or,

(c) Where, following consideration of the application, Council concludes that paragraph (b) does not apply, and the major emission of the facility is likely to cause a significant public health effect in the Town, Council shall:

(i) refuse to approve the application and, in such case, also decide that in its opinion the major emission of the facility constitutes a public nuisance; or

(ii) approve the application on the basis that the public interest favours allowing the major emission of the facility to occur, subject to such conditions as Council may deem appropriate.

PART VI – FEES

14. (1) The fee prescribed for applicants for approval under this by-law is $25,000, paid by certified cheque, and payable to The Corporation of the Town of Oakville.

(2) The fee prescribed in subsection (1) includes $5,000 for administration and $20,000 to carry out the peer review of the application pursuant to sections 7, 8 and 9 of this by-law.

(3) Where an applicant pays the prescribed fee, but the actual cost incurred by the Town is less than this fee, the Town may return such portion of the prescribed fee as it determines appropriate.

PART VII – EMISSIONS MONITORING AND TOWN REPORTING

15. Each owner or operator of a facility receiving approval under this by-law must prepare and submit to the Town, annually during the first three years following approval, and thereafter for such period as the Town determines appropriate, a report that provides average and worst-case rates of daily and annual health-risk air pollutant emissions from the facility, and such further information as Council may require.

16. Each year, based on the most current information provided under this by-law, the Town shall prepare a report on health-risk air pollutants, including the estimated total emissions, expressed in kilograms, of each health-risk air pollutant from:

(a) all facilities causing major emissions approved under this by-law; and,

(b) all other facilities reporting under Part III.

PART VIII – OFFENCES

17. (1) Any person, being the owner or operator of a facility that is subject to this by-law, is guilty of an offence, if that person:

(a) fails to provide the Town with emission information in accordance with Section 4 of this by-law;

(b) fails to submit an application for approval for the facility required under Section 5 or 6 of this by-law;

(c) operates or permits the operation of the facility without an approval required under Section 5 or 6 of this by-law;

(d) operates or permits the operation of the facility other than in compliance with a condition of approval of a facility imposed under Section 12 or 13 of this by-law;

(e) fails to provide a report under Section 15 of this by-law; or

(f) provides false information to the Town under any provision of this by-law.

(2) Any person guilty of an offence is liable upon conviction to a fine of up to $100,000 for a first offence, and $10,000 a day for each day or part of a day that the offence continues for any subsequent offence.

PART IX – TOWN GUIDANCE

18. (1) The Town may issue guidance documents to assist with the implementation and administration of this by-law.

(2) Areas of guidance may include, but are not limited to:

(a) information to be submitted under PART III and use of equivalent reporting regimes;

(b) exemption from PART III and examples of emissions of a negligible quantity of any health-risk air pollutant; and,

(c) information to be submitted under PART IV, including protocols for assessment, mapping, modeling, evaluation, and appraisal.

PART X - TRANSITIONAL MATTERS

19. (1) Subject to subsection (2), this by-law shall apply immediately on its passage by Council.

(2) Despite any other provision of this by-law:

(a) For any person owning or operating a facility subject to section 4 of this by-law:

(i) the Town will suspend the operation of this section for the first six months following the passage of this by-law;

(ii) after six months from the passage of this by-law, the operation of this section shall remain suspended, except for those persons who have a certificate of approval for air emissions under section 9 of the Environmental Protection

Act;

(iii) the suspension set out in paragraph (a)(ii) shall be lifted after one year from the passage of this by-law, or after such further time as Council may determine.

(b) For any person owning or operating a facility subject to section 6 of this by-law:

(i) the Town will suspend the operation of this section for the first year following the passage of this by-law;

(ii) after one year from the passage of this by-law, the operation of this section shall remain suspended, except for those persons who have a certificate of approval for air emissions under section 9 of the Environmental Protection Act;

(iii) the suspension set out in paragraph (b)(ii) shall be lifted after two years from the passage of this by-law, or after such further time as Council may determine.

PART XI – SEVERABILITY

20. If any section of this by-law, or parts thereof, are found by any court of law to be illegal or beyond the power of Council to enact, such section, sections, part or parts shall be deemed to be severable, and all other sections or parts shall be deemed to be separate and independent therefrom and to be enacted as such.

PASSED this 1st day of February, 2010.

MAYOR

CLERK

OAKVILLE

REPORT

COUNCIL MEETING

MEETING DATE: JUNE 1, 2010

FROM: Legal Department
Environmental Policy

DATE: May 20, 2010

SUBJECT: **Health Protection Air Quality Initiative**

LOCATION: Town wide
WARD: Town wide

RECOMMENDATION:

That the report of the Town Solicitor and Director of Environmental Policy dated May 20, 2010, be received.

That By-law 2010-118, a by-law to amend By-law 2010-035, a by-law to assess and control the health effects of major emissions of fine particulate matter in the town of Oakville, be passed.

That the Supplementary Submissions and Reference Material for Application for Review, dated April 12, 2010, submitted to the Environmental Commissioner of Ontario for consideration by the Minister of the Environment, pursuant to the provisions of the *Environmental Bill of Rights, 1993,* be ratified.

KEY FACTS:

The following are key points for consideration with respect to this report:

- By-law 2010-035, a by-law to assess and control the health effects of major emissions of fine particulate matter in the town of Oakville, was passed on February 1, 2010
- Staff has taken a number of steps to implement the by-law
- A housekeeping amendment is required to clarify the definition of "facility" and the phase-in of the reporting requirement under the by-law
- On December 14, 2009, an Application for Review with the Environmental Commissioner of Ontario, for consideration by the Minister of the Environment, was submitted on behalf of the town pursuant to provisions of the *Environmental Bill of Rights, 1993,* requesting a provincial review of the need for a new act or regulation with regard to $PM_{2.5}$
- On March 22, 2010, Council approved supplementary submissions and further information to be provided in support of the Application for Review

- In the course of finalizing the submissions, pursuant to comments received from the town's consultants, some revisions to the submissions were made
- In the interests of time, the revised submissions were provided to the Environmental Commissioner of Ontario and the Ministry of the Environment on April 12, 2010, and require ratification by Council

BACKGROUND:

This report provides an update to Council regarding the status of the implementation of the town's Health Protection Air Quality By-law 2010-035. Some housekeeping amendments to the by-law are recommended. Finally, Council ratification of the final Application for Review form that was submitted pursuant to the provisions of the *Environmental Bill of Rights, 1993,* is requested.

COMMENT/OPTIONS:

Health Protection Air Quality By-law 2010-035 Implementation

With the passage of the town's Health Protection Air Quality By-law 2010-035 on February 1, 2010, staff has developed an implementation strategy to facilitate awareness and compliance with the by-law, including a plan for the development of guidance documents in consultation with stakeholders to support implementation and compliance. A brief overview of the by-law implementation schedule and activities is provided in Appendix A.

Staff has been engaged in a number of outreach and education activities to promote awareness of the by-law. These include presentations to the GTA –Clean Air Council, Clean Air Hamilton, Environmental Coordinators, the Oakville Development and Building Liaison Committee, and the Municipal Law Departments Association of Ontario, and meetings with staff of other municipalities, including Mississauga and Toronto, and the Regions of Halton and Peel. Also, information has been provided to participants at various conferences, workshops and community events attended by staff, the Mayor and Members of Council, such as at the FCM Sustainable Cities Conference in February. Additional materials are being developed for inclusion in a consolidated package of information on key aspects of the by-law.

These efforts will be supported by a contract staff resource to oversee all aspects of by-law implementation and transition to by-law reporting, including outreach, education, and data management.

By-law Amendments

Staff is recommending two minor amendments to By-law 2010-035. The first is to revise the definition of "facility" to clarify that residential sites containing less than 25 dwelling units are exempted under the by-law.

The second amendment being recommended is to clarify the phase-in of the reporting requirement under s. 4 of the By-law. Section 4 of the By-law requires that an owner or operator of a facility that may emit at least one health-risk air pollutant (as defined in the By-law), shall advise the Town in writing of the emission source and provide the average and worst-case rates of daily and annual emissions of the pollutant. Section 19 of the By-law provides for a transitional period, whereby this reporting requirement would begin to apply six months after passage of the by-law (August 1, 2010) to persons who had a provincial certificate of approval for air emissions under s. 9 of the Environmental Protection Act, and one year after passage of the by-law to all other persons with facilities emitting at least one health-risk air pollutant.

For ease of implementation, staff is recommending that the transitional provision of the By-law clarify that after the initial six months period has elapsed and the reporting requirement applies to persons with a provincial certificate of approval for air emissions, such persons will have a period of time to work with staff to compile and submit the required information and will not be immediately out of compliance with the By-law as of August 1, 2010. In any event, however, all reporting must be filed with the Town pursuant to the By-law by no later than February 1, 2011.

These proposed amendments are set out in By-law 2010-118, attached as Appendix B.

Changes to the Supplementary Submissions for the Town Application for Review

Attached as Appendix C is a copy of the final form submission, dated April 12, 2010, filed on behalf of the town to the Environmental Commissioner of Ontario for consideration by the Minister of the Environment, seeking a review of the need for a new provincial Act or Regulation regarding $PM_{2.5}$. The following table summarizes changes that were made to the March 16, 2010 draft submission that was presented to Council for approval at its meeting of March 22, 2010. These changes were made pursuant to comments received by town consultants to remove internal inconsistencies and to improve the overall scientific and regulatory basis for this requested Provincial action:

March 16, 2010 Draft	**April 12, 2010 Final Submission**
Scientific references At the time of the initial submission, a major U.S. Environmental Protection Agency study on $PM_{2.5}$ was in circulation, but not finalized	The final submissions reference (eg. para. 1) the recently finalized U.S. Environmental Protection Agency Report, "Integrated Science Assessment for Particulate Matter" (December 2009, 2228 pages)
Summary of Scientific Thresholds The draft submission spoke of two thresholds (para. 34)	The final submissions (para. 34) have corrected and simplified this point; they speak to a single threshold "where health effects are demonstrated"
"Reference levels" The draft submission placed emphasis on this term, as a fixed scientific term for certain $PM_{2.5}$ concentrations	The final submissions explain this term, but do not place weight on it, as the latest science indicates that the reference level for $PM_{2.5}$ is lower than that stated in the late 1990's (para. 41)
Component (6) of the requested provincial action on $PM_{2.5}$ The draft submission requested that the Province assess "Most Of The Risks To Public Health"	The final submissions request that the Province assess "Key" risks
Component (7) of the requested provincial action on $PM_{2.5}$. The draft submission sought a regulation that established three specific standards, which included establishing a standard based on the "reference level".	The final submissions (para.122) add a new point of contrast with existing provincial regulation; whereas existing provincial regulation focuses on acute health effects, the Town is requesting attention to chronic effects due to air pollution (para. 122) Consistent with the latest science, the final submissions remove emphasis from the "reference level" and seek a regulation establishing two specific standards: (a) a standard to trigger site-specific assessment based on a regulatory "threshold of concern" for ambient concentrations of $PM_{2.5}$ in the air; and (b) a binding upper limit for ambient air concentrations of $PM_{2.5}$ that would be based on an "unacceptable" impact on public health

March 16, 2010 Draft	April 12, 2010 Final Submission
	Also, to address this change and rectify some inconsistencies, the final submissions change several paragraphs, including those on: - what is meant by the "threshold of concern" (paras. 127-128) - the trigger for public notice and reporting (paras. 129-130) - the binding upper limit (para. 140). The final submissions also distinguish between Federal and Provincial practices for setting upper limits. The Province's general approach is to regard any risk that exceeds one additional death per million people receiving lifetime exposure (i.e., 70 years) to be unacceptable. By contrast, the Federal government uses a less conservative number, which is to regard a threshold of one additional death per 100,000 population of lifetime exposure as unacceptable. The Provincial threshold is thus ten times more protective of public health than the Federal threshold. (The Town by-law uses the less conservative Federal threshold as its marker of significance.)

Staff is seeking ratification by Council of the revised Submission. Once approved by Council, the final form submission will be posted on the town's website.

The Ministry of the Environment has advised that it will contact the town by June 15, 2010 if a review is to proceed pursuant to the request.

CONSIDERATIONS:

(A) PUBLIC

The town is taking steps to protect the health of residents through implementation of the Health Protection Air Quality By-law 2010-035 and a request for a provincial review of the need for regulation of $PM_{2.5}$.

(B) FINANCIAL

Staff is monitoring costs associated with implementation of the By-law.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

The Department of Environmental Policy has been active in promoting a number of initiatives to improve Oakville's air quality.

(D) CORPORATE AND/OR DEPARTMENT STRATEGIC GOALS

This report addresses the corporate strategic goal to:

- have environmentally sustainable programs/services
- be the most livable town in Canada

(E) COMMUNITY SUSTAINABILITY

This report is in support of the pillar of environmental sustainability.

APPENDICES:

Appendix A: Health Protection Air Quality By-law 2010-035 Implementation Strategy

Appendix B: By-law 2010-118

Appendix C: The Need for a New Act or Regulation to Protect Public Health From PM 2.5 in Ontario Air: Supplementary Submissions and Reference Material for Application for Review, submitted to The Environment Commission of Ontario For Consideration by the Minister of the Environment, dated April 12, 2010

Prepared by:
Cindy Toth
Director of Environmental Policy

Prepared by:
Douglas Carr
Town Solicitor