COMMENTS TABLE

Focus Group on the Guidance Implementation Document for Section 5/6 of the By-law (December 8, 2010)

#	Question / Comment	Response	Relevant Change	Section or Page Number in Guidance Document
A. Are there any portions of the guidance document that you feel are unclear (or open to misinterpretation) to facility owners and operators? B. What changes would you like the town to consider to the guidance document that would make it easier to understand and use?				
The technical and scientific experts developing the guidance document have clear protocols and methodologies for by-law compliance. Amendments to the Section 5/6 Guidance document are intended to improve explanations or provide more clarity for the benefit of guidance document users.				
1.	Please clarify what changes will trigger an amendment given variability in annual production. Participants would like clarity on the following items: a. What is "a change in emissions"? What is a modification? b. Provide more guidance on the timing of amendments; c. Provide more guidance on what triggers an amendment (Change in maximum or average operating scenario? An increase in the number of shifts (i.e., increase in production)?) d. Clarify operating scenarios (max-24 hour scenario); and e. What happens if you trigger the threshold one year and then are below the threshold another year? (Variability).	(a) For facilities that have received a town approval, a change in emissions is an increase in the average or maximal emissions above the limits set out in the town approval. "Modification" is not a term used in the Town Guidance. (b) Where a facility can reasonably foresee a change that is inconsistent with the conditions of approval, it must proactively apply for an amendment to their permit. (c) It is not possible in advance to set out all the changes that may trigger an amendment. If a facility is considering a change that may lead to an increase in emissions it should consult with the town to determine if an amendment may be required. (d) See Guidance section 3.2.1.2. (e) Once the threshold of a major emission is triggered, a section 6 application is required regardless of whether the facility may be below the threshold in future years.	Guidance revised to add a requirement that applicants submit data on the variability of operations/emissions around the average. Guidance revised to clarify according to answers given.	Sections 3.2.1.2 & 5.2 added. Description added to section 3.2.1.1. Additions to Table 3-2. Text added in sections 2.1 and 2.2 Text altered in section 5.2.

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		See response to Q#4 as well.		
2.	Should "maximum theoretical capacity" be what is assessed for the by-law?	Both average emissions and maximal emissions are assessed. A facility has the option of submitting as a condition of approval a maximal operating envelope within which it may operate (and which may be less than the theoretical maximum).	Guidance revised to emphasize a facility's ability to define an operating envelope than may be less than the theoretical maximum.	Description added to section 3.2.1.1.
3.	For an approved facility, will the application fee apply for amendment?	Yes. However, part VI 14 (3) of the bylaw indicates that the where the actual costs incurred are less than the "prescribed" fee, the unused portion will be returned. If the amendment is very simple, for example, a lower cost may apply.		
4.	Emission changes of 10% before an amendment is required seem unrealistic. Plant operations can vary immensely due to changes in customer preference or the economic climate. In the recent recession, one facility's production changed more than 50%.	Both the average and maximal emissions of a facility must be evaluated under the HPAQB. Average emissions should be based on multiple years of data that take into account most year-to-year variations. The evaluation of the maximal emissions scenario will address the type of large increases in a facility's production mentioned. See response to Q#1(a) of what changes will trigger an amendment.	Guidance revised to add clarification according to answers.	Section 3.2.1.2 added. Description added to section 3.2.1.1. Additions to Table 3-2.
5.	Given the natural fluctuations in the market place and variability in production in a manufacturing setting, reapplication should only be required for process changes or facility expansions.	See response to Q#1 & Q#4		
Comments and Questions about Background Concentrations				
6.	For existing facilities, background monitor at AQI site already measures the impact of the existing source. How will this be handled? Can we model impact at station and then subtract out to revise background data?	In the draft method presented in December 2010 for existing facilities the Town only required that the cumulative concentration be assumed to be equal to the provided	Guidance revised to require that existing facilities now add their impacts to those FPM levels measured at the MOE monitoring station.	Description added to sections 3.2.2.1 & 3.2.2.2

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		background concentration. As a result of comments received the Town will alter this method so that applicants must now add the facility-specific impact to the provided background concentration. See the revised sections 3.2.2.1 & 3.2.2.2 of the Guidance for more details.	Guidance revised to alter cumulative concentration section to require facility-impact addition to MOE monitored background.	Text removed from section 3.4.
7.	Serious consideration needs to be given to using a different application approach for existing facilities. We remain concerned as an existing facility in the Town of Oakville that is already part of the ambient levels seen at present that the proposed approach would be double counting our facility. The Guidance needs to document the process as to how this phenomenon is to be avoided. The proposed approach will lead to misleading results.	See answers to Q#6.		
8.	*Background Concentrations (Sections 3.2.2.1 and 3.3.2.2)* The Town acknowledges in this section that since the background air quality data already includes the contribution from existing sources (including the industries submitting the applications), the predicted concentrations may exceed measured background levels when the background data are added to dispersion model predictions to estimate cumulative concentrations. While it is acknowledged in this section that the Town recognizes this issue and plans to establish more monitoring stations, this does not address the issue that utilizing these overly conservative predicted levels in the health risk assessment required for each application will over-estimate the potential health impacts of each facility for the cumulative concentration case.	The Ministry monitoring station is located in a residential area and is not in close proximity to any major facilities or highways. Based on prior studies by the Province, the background concentrations of FPM in this area are lower than in many other areas of Oakville. Cumulative impacts are therefore are not likely to be overestimated. However, an applicant may use alternative background data, or modify the MOE data; if there is sufficient evidence that the alternative or modified will provide a more accurate result for the facility. Use of alterative or modified background data will be reviewed by the Town. Also see answer to Q#6	Guidance revised to require that existing facilities now add their impacts to those FPM levels measured at the MOE monitoring station. Guidance revised to alter cumulative concentration section to require facility-impact addition to MOE monitored background.	Description added to sections 3.2.2.1 & 3.2.2.2 Text removed from section 3.4
9.	Existing operations are already included in the background – how will the town account for that?	See answer to Q#6.		

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Comments and Questions about Modelling				
10.	Why model? Why not set limits based on an overall kilogram release to atmosphere? (Since all companies in Oakville share the same airshed).	Each individual facility will have its own unique impacts based on plant characteristics; this requires a modelled assessment.		
11.	There is a problem with the guidance document because a short term maximum model is being asked to be applied to an average scenario. For example, ½ of a facility's emissions may be from heating alone.	The CALPUFF model may be used for the assessment of a variety of impact scenarios, including short-term, long-term, average and maximal. The Town Guidance provides guidance on how to use CALPUFF to evaluate long-term average and maximal impacts. Short term predictions are not required. Emissions, whether from heating or operations, must be included in the facility's assessment.		
12.	This type of modeling is not routinely done in Ontario. The integration of the CALPUFF model and ICAP is pioneering work. Participants had not seen this before – therefore there were concerns about how you could put the results of the modeling exercises in context. How would you calibrate the CALPUFF output with health impacts?	The methodology used is standard for health assessments of facilities. First contaminant levels that result from the facility's emissions are assessed. For air quality, this generally involves dispersion modelling. In this case the CALPUFF model is used for dispersion modelling. Second, the resultant contaminant levels from CALPUFF are assessed through a health risk assessment using ICAP/NICAP health risk coefficients. No calibration of CALPUFF to ICAP/NICAP is required. One example of this approach, in a health assessment of a proposed facility emitting $PM_{2.5}$, is, Jacques-Whitford, "Air Quality Assessment – Technical Study Report; Ontario Power Authority: Local Effects of the Displacement of Coal with Gas-Fired Generation", January 31, 2009.		
13.	Has the town sought outside review of alternatives to this type of modelling?	Yes, the Town has sought the opinion of the air		

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		experts employed by the Town including Dr. Franco DiGiovanni, Dr. Claude Davis and Mr. Phil Fellin. These experts have also consulted with Dr. Jesse The.		
14.	There was a concern about the scenario building and the potential inability to have a point of reference for the outcomes.	The question/comment is unclear; please provide additional clarification.		
15.	The substantial problems with average annual vs. worst case with the model have not been addressed.	The question/comment is unclear; please provide additional clarification.		
16.	EPA approved CALPUFF (V5.8) is not recommended by EPA for secondary particulate. Chemistry is too simple. Later versions (6 and up) and Vista version are better at chemistry and fix some other bugs. Would Oakville accept most recent CALPUFF, rather than EPA old version?	(i) CALPUFF v.5.8 is the present US EPA regulatory version, (ii) the Town's guidance (section 3.2.1.1) allows applicants to use alternative models but justification must be provided with the submission, (iii) the Town is cognizant of the differences in later versions of CALPUFF and may consider them for inclusion in later versions of the present Guidance.		
17.	For residential (high-rise and/or developments) and commercial units, how are existing facilities handled?	Residential high-rises or commercial units are only subject to the application requirements if they meet the definition of a facility contained in the by-law. Note the definition of facility sets a minimum number of dwelling units to be considered a facility.		
18.	Clarify that modelling and assessment are only required for those emissions that are above the “major emission quantities”? Can the applicant ignore the other substances?	The Town clarifies that modeling and assessment are only required for those HRAP emissions that are above the major emitter thresholds, and therefore all other HRAPs are not required to be included in the facility approval application.		
19.	Does the modelling apply to the facility itself?	Proponents are expected to assess the facility’s impact at all locations off-site. However, where a facility is itself a sensitive receptor (such as a hospital), or contains sensitive receptors (e.g., employee daycares or residences), the facility is expected to assess impacts on-site at appropriate on-site locations.	Guidance revised to add requirement for assessment of on-site sensitive receptors.	Description added to section 3.2.1.4

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20.	How to take into account start up and shut down emissions? What about malfunctions?	Start-up and shut-down emissions that are a routine part of the operations must be included. Emissions due to spills or malfunctions are not to be included.	Guidance revised to clarify that emissions due to spills/emergencies are not to be considered.	Text added to section 3.2.1.2.
21.	Building the scenarios required for the town's reporting will take a significant level of effort (much more than was expressed by the town's panellists).	The Town anticipates that given the significant work conducted by the Town to make the application process easier for applicants, the level of effort will be commensurate to that required for an AERMOD-based application for a Provincial CofA.		
22.	The modelling becomes the most expensive part of this by-law.	The level of effort will be commensurate to that required for an AERMOD-based application for a Provincial CofA. By providing various input data and model input parameters, the Town has endeavoured to minimise the effort and hence costs and to provide a consistent modelling regime.		
23.	More detailed methodology is required for modelling	Noted.		
24.	The requirement to include stack data in the initial phase reporting should be limited to those stacks required by NPRI only (50m+). The inclusion of this data does not provide any value added information to the Town.	The stack data is required for modeling and therefore is required by the Town. See also answer to Q#71.		
25.	We concur that the proponents need to define their operating scenarios to satisfy the intent of the By-Law.	Noted.		
26.	The EPA does not recommend V5.8 for secondary particulate and recommends V6 and up. Is the Town considering Version 6 or higher or will there be an explanation for the apparent discrepancy?	See Q#16		
27.	The Guidance document requires several emission scenario runs in CALPUFF to determine the average and worst case impacts. This also includes defining as many scenarios as needed to describe annual emissions of each pollutant that lead to worst case impacts for both average and maximal emissions. Every scenario requires research and CALPUFF run time. Considering the size and complexity of a major facility, this requirement alone could take months to satisfy.	Noted. Also see answer to Q#106.		
28.	US EPA AP-42 emission factors are widely accepted and are acceptable to the	The US EPA AP-42 emission factors have a range		

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	MOE. The Guidance should explain the purpose for requesting a quality rating. In situ testing at some large facilities in the US have found that EPA AP-42 emission factors are actually conservative.	of quality ratings associated with them. These ratings allow for the evaluation of the degree of accuracy with which emissions have been estimated with the emission factors used. Use of quality ratings is consistent with other jurisdictions (e.g. requirements for a Provincial CofA application). If more accurate emissions data are available however, such as stack testing, they should be used instead of AP-42 emission factors.		
29.	*Meteorology/CALMET (Section 3.2.1.3.2)* The Guidance notes that the Town preferred CALMET processing uses output for the PSU/NCAR MM5 prognostic model, although several other prognostic model options are available which are generally considered to be superior to MM5. The Weather Research and Forecasting (WRF) meteorological model, for instance, has options for more advanced dynamics and physics compared to MM5 and is a newer generation of meteorological model. Was consideration given to the use of other prognostic models and why was MM5 chosen by the Town?	Other prognostic models were considered. MM5 was chosen based on the wide range of usage and support in the US and Canada. As stated in section 3.2.1.3.2, a proponent is able to submit an alternative meteorological dataset as part of the application but must include sufficient details for all switches and options used etc.; this alternative data will be reviewed by the Town as part of the application process.		
30.	The land use data should be subject to review every few years because it will not stay static. The land use planning dept. will have to ensure this is kept up to date as it can impact the model significantly.	This was considered by the Town and will be updated accordingly when (verifiable) updated data are available.		
Comments and Questions about Receptors				
31.	Are impacts looked at only at receptors in Oakville? What if impacts outside Oakville are significant, but nothing significant inside Oakville?	Only results at receptors within the Town of Oakville will be considered for decision-making.		
32.	Is any location in Oakville a potential receptor or only sensitive receptors?	A default set of receptors (receptor grid) will be supplied by the Town (Section 3.2.1.4). The applicants must also show sensitive locations with modelling results (Table 3-2, row 3.2). See also answer to Q#33.	Guidance amended to add requirement that community sensitive receptors be clearly identified by superimposing results on suitable base maps.	Text added to sections 3.2.1.4 and 3.4. Requirements added to Table

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				3-2.
33.	What about self-contamination for sources such as hospitals, condominiums?	see answer to Q#19		Description added to section 3.2.1.4
34.	The by-law also applies to developments greater than 25 dwelling units. Is this for high-rise or also for single home developments? For those assessments what is included? Heating? Increased traffic? Secondary development (schools, malls, libraries)? How are receptors managed in that case, since homes themselves are sources and receptor?	The "facility" definition provides for a 0.1 ha lot size exemption; together with the major emitter threshold this will exempt single-family dwellings on a single lot. High-rises with greater than 25 dwelling units that exceed the major emitter threshold may not be exempted based on the 0.1 ha lot-size and if they meet the facility emission limits specified in the By-Law.		
35.	Is there a similar minimum for commercial units?	If commercial units fit the "facility" definition, and are major emitters, then section 5 or 6 apply.		
Comments and Questions about the 25% Progressive Reduction Option				
36.	How does the 25% reduction work? Provide more guidance on the 25% reduction option especially: a. How to assess the reduction? b. How to provide information on technologies?; and c. Provide examples of emissions reductions.	The 25% option only applies to existing facilities that Council has concluded will likely cause a significant public health effect. a. See the revised section 4.3.2 of the Guidance on this issue. b. The Town requires that the type of information to be provided will be site- and equipment- specific and so cannot provide general guidance on how the information will be provided. c. Emission reductions can be realized through methods such as control devices, product substitution, decreases in process throughputs, etc.	25% progressive reduction method description included in Guidance.	Section 4.3.2 added to Guidance.

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37.	If a facility has state-of-the-art equipment and cannot further reduce emissions, what will the town do?	The facility may present its case at Council of how it is in the public interest for the facility to continue to operate without further alteration.		
38.	The 25% prospective reduction target would require multi-million dollar investments, and in some cases, there is no known control technology. Therefore, the town should ask for history in the application so that major emitters can show reduction trends.	The facility may include such information in its application for consideration by Council.		
39.	Clarify that the 25% reduction option applies to the facility-induced ambient concentrations, not cumulative.	The 25% progressive reduction option applies to facility-induced ambient concentrations. See answer to Q#36.		
40.	For NOx, the town needs to take a look the overall approach to evaluate it. For majority of the emissions are comfort heat related and there is virtually no options to reduce emissions except not using combustion. So is there alternate way to deal with the 25% reduction?	The facility may include such information in its application for consideration by Council.		
Comments and Questions about the Interpretation of the Results				
41.	Participants noted that people who are not experts will have to pass judgment on the outcomes of the modeling; so, whoever does the modeling will have a lot of explaining to do to help others understand what the numeric results mean.	The modelling results will be reviewed through the Town review process. The Guidance requires (Table 3-2, row 0) that a public summary be submitted. The numeric results presented in the public summary will provide information to Council on the degree of impact of the facility. There will be a number of opportunities to explain the meaning of the numeric results; the Town-review process, presentation at Council and via town-staff		
42.	Major emitters should be allowed to demonstrate context about reduction history and other relevant considerations.	The facility may include such information in its application for consideration by Council.		
43.	Results of the applications will be interpreted by non-technical background personnel – will this be a problem?	see answer to Q#41		
44.	What are the technical qualifications of the town staff that will be reviewing	The Town may choose qualified internal staff,		

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	applications?	or qualified external consultants to conduct the review. The Town will assess the qualifications using normal work assignment practises.		
Comments and Questions about Availability of Technical Support				
45.	Participants expressed concern that there are only a limited number of "experts" with the ability to do the modeling required for this by-law and that their availability to complete the modeling will dictate the timeline for major emitter's compliance (a funnel effect).	Based on preliminary research conducted by the Town as to the number of potential major emitters there is a sufficient base of consultants available.		
46.	For the review process, participants suggested there be a clear separation between those providing technical advice to the town and those that review the applications. They should be mutually exclusive.	The Town will assign the appropriate qualified personnel to review the application. To provide context, Provincial CofA applications are reviewed by MOE staff, while the MOE has developed its own standards and Guidance.		
Comments and Questions about Health Effects				
47.	Is there direct evidence that the 300kg of PM for NPRI reporting is directly related to health effects?	The 300kg threshold is not the threshold for health effects as the weight of scientific evidence is that there are no safe level of FPM. The Federal NPRI reporting thresholds were developed in order to obtain information for policy and regulatory purposes in respect of the country's largest emitters. As such, the 300kg defines what would constitute a major emission of a contaminant that is not safe at any level. The degree of health risk imposed by a facility emitting 300 kg/year of FPM is specific to each facility; this is why the town requires modelling and a health assessment for each major emitter.		
48.	Clarification of public health impact assessment, e.g. maximum exposure à ICAP based on ambient monitoring data, even average value will also apply with the same assessment.	Further information on the public health assessment has been added to the Guidance.	A technical explanation of the required health risk assessment is provided in an appendix and referred to in section 3.4.	Explanatory Appendix 6.6 added to

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		See also answer to Q#50		Guidance.
49.	The use of ICAP with maximum concentrations should be re-evaluated. Background data on the appropriateness of this approach should be provided.	See answer to Q#50		
50.	*Public Health Risk Assessment (Section 3.4)* The methodology prescribed in the Guidance is to utilize maximum annual average and maximum ground level fine particulate matter (FPM) concentrations predicted over all off property receptors from the dispersion modelling of a facility (including both with and without background concentrations) along with the ICAP risk coefficient for premature mortality to predicted increases in premature mortality. Additionally a procedure to produce premature mortality isopleths is described and required in each submission. These methodologies are however, inconsistent with the methodologies supported for use in the ICAP model and will consistently over-predict premature mortality. In order to predict statistically significant premature mortality levels, the ICAP model utilizes the health risk coefficient in combination with a concentration level representative of exposure to a significant population (the concentration level at the population weighted centroid of a census division, where census divisions in Ontario are locales with between about 13,000 to over 2.5 million people). The Town's proposed methodology utilizes the maximum predicted concentration over all off-property receptors around the facility being assessed, which is overly conservative as there may only be a small (or no) population exposed to this level. Maximum ground level concentrations typically occur in close proximity to a facility and decrease rapidly with distance from the plant, and therefore using the maximum concentration over all the receptors will not be representative of the exposure experienced by the vast majority of the population of Oakville. Use of a population weighted or study area spatially averaged FPM concentration level would result in a more representative prediction of adverse health impacts on the population of the Town of Oakville. It is unclear how the required graphic procedure (in which the predicted FPM concentration contours are weighted by the health risk coefficient) will be used or what their usefulness is, as this procedure does not account for the population exposed to a given FPM concentration level. In general the authors have significant concerns with the use of the ICAP risk coefficient as it was never designed or intended for use for single point source	There are a few concerns expressed in this question which will be addressed in turn. (1) whether the ICAP methodology is appropriate for health assessments of facilities; (2) whether population exposure will be taken into account; and (3) whether the evaluation methods used will lead to an overestimate of risk. (1) Use of the ICAP methodology: The ICAP/NICAP studies developed health risk coefficients to evaluate the health risk associated with any change in PM2.5 concentration regardless of source. Whether the PM2.5 ambient concentrations caused by a point source is being evaluated or whether the ambient levels across the Province from all contributors is being evaluated is not relevant to the methodology. ICAP provided assessment of health impacts on the municipal as well as the Provincial level – the same scale of assessment as in the HPAQB. However, the methodology does not dictate the scale of the study, and is suitable for evaluation of impacts on smaller populations. A detailed explanation of the methodology is now provided in Appendix 6.6 of the Guidance.	Guidance amended to add requirement for base mapping to underlay exposure and risk isopleths. See Q#32. An additional appendix is added to the Guidance (Appendix 6.6) to provide an example of an emissions and health risk impact calculation.	Appendix 6.6 is added to the Guidance.

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	applications. The model is built on a series of algorithms that were designed and tested for populations spread across an airshed. Therefore, the authors do not believe that the use of the ICAP risk coefficient for premature mortality for this purpose is appropriate.	(2) Population Exposure: The population exposure is addressed through the mapping and isopleths of risk, associated with FPM emission from a facility. These are required as a graphic display of risk to aid Council in making its decisions. Together with the risk mapping, applicants will be required to provide a base map for the risk mapping to provide context for the risk; this base map (such as aerial photographs) can provide information to decision makers on population distributions being exposed to the calculated risks (the Town has added this requirement to the revised Guidance). If a facility seeks to obtain a public interest approval, the applicant may provide additional information regarding population exposure. (3) Assessing Health Risk. The Town by-law requires that both average and maximal emissions of FPM caused by a major emitter be estimated and assessed .The health risks of both of average and maximal exposures are relevant to the Council's decision on whether to approve a facility. Evaluating the health risk of the maximum scenario is not an overestimate rather it is simply the health risk of the maximum scenario.		
Comments and Questions about the Town Review and Appeal Processes				
51.	Peer review requirements and process needs to be better defined.	See answers to Q#44 and Q#46		
52.	What are the criteria for peer review? Would like the town to identify a facilitated process for review; review needs to be different from those providing	See answers to Q#44 and Q#46	A clarified description of the review process has been included in the Guidance.	Modifications to section 4.3.

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	the town with technical advice. This won't be simple!			
53.	With MOE, if we apply and proponent doesn't agree with MOE decision there are appeal mechanisms. How are differences in review opinions going to be handled?	Unlike the MOE process, staff does not render a decision. If the applicant disagrees with the Town staff report or Town review, it may present these issues in seeking Council's approval.		
54.	Is there an appeal process if the town refuses to give approval to the applicant? Dispute resolution?	There is no Town appeal process.		
55.	What are the criteria for selecting reviewers?	See answers to Q#44 and Q#46		
56.	Is there any way that the facility can provide input in the selection of the reviewer?	See answers to Q#44 and Q#46		
57.	Is there a mechanism in place for facilities to bring in outside consultants during the review process?	See answers to Q#44 and Q#46		
58.	Since the model is very sensitive with met data inputs, is the CALPUFF meteorological (met) data only going to be prepared by AirZone? Will there be an opportunity for review of the met data? It would be better to have a third party to review the met data.	This is being considered by the Town. Note that the Town can supply the parameters used in preparing the meteorological data; the proponent may select to use alternate data which will be reviewed by the Town for acceptance or not depending on the outcome of the Town review.		
59.	The Town has indicated that they do not yet have a selection process to identify a reviewer. A reviewer must be an independent third party that was not involved in the development of this By-Law or any supporting documentation to ensure impartiality.	See answers to Q#44 and Q#46		
60.	*Review and Validation of Town Supplied CALMET and Background Concentration Input Files (Section 3.2.1)* As the Town is requiring that applications for approval undergo a review process, it seems reasonable to expect that the Town supplied dispersion model input files undergo a similar process to ensure that the model input files are adequately quality assured and that no errors or inappropriate methodologies have been included prior to the files being used by the facilities in their submissions.	The Town will supply modelling input files as an aid to the review process and to aid applicants. Provision of model input data and review of the applicant submission are general procedures used by other regulatory bodies (e.g., the Ontario MOE). In general applicants may suggest alternative		

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		methods; those other approaches will be reviewed by the Town as part of the application process.		
61.	The background data files (meteorological and air quality) should be third party reviewed for quality assurance purposes	See answers to Q#60		
62.	The met data chosen as the 'default' by AirZone One should be externally reviewed. It is also of importance that this data is demonstrated to be statistically valid by comparing against historical trends.	See answers to Q#58 and Q#60		
63.	Can you please confirm that AirZone One will not be doing reviews of applications? It is our understanding that AirZone One will continue to work closely with the Town on the implementation of the By-law and thus they could not truly be impartial, external reviewers.	See answers to Q#44 and Q#46		
64.	Criteria for selecting reviewers should be released in Draft for review and comment.	See answers to Q#44 and Q#46		
Other General Clarifications				
65.	What is the definition of “airshed”?	This is indicated in the by-law definitions section.		
66.	Is the “airshed” only within Oakville or does it extend beyond Oakville boundary? It needs clarification.	The airshed(s) can exist anywhere within the modelling domain; however, only health risk impacts within Town boundaries will be considered for decision-making.		
67.	Since this By-Law is specific to the Town of Oakville, the 'affected airshed' should only reflect the conditions within the boundaries of Oakville and needs to be reflected in the Guidance document.	The affected airshed can occur anywhere within the modelling domain; however, decisions will only be made based upon those parts of the affected airshed that lie with the bounds of the Town of Oakville.		
68.	Provide clearer distinction on guidance for existing vs. proposed facilities in the Guidance; especially with respect to the health impact assessment. a. The guidance document should be organized by proposed facility vs. existing facility, rather than combining them.	The Town has amended the Guidance accordingly.		
69.	Provide clearer distinction between NPRI reporting requirements and the town’s triggers for defining a Major Emitter.	While this is provided in sections 2.1 and 2.2, this will be considered further by the Town by clarifying differences with NPRI.	Sections 2.1 and 2.2 of the Guidance are amended to clarify differences with NPRI.	Text changes to sections 2.1 & 2.2
70.	Regarding the Letter of Intent, please clarify the content of the letter of intent	The Town has amended the Guidance to	Guidance amended.	

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	and set the required date at January 4th, 2011.	withdraw the requirement for a Letter of Intent.		
71.	Issues around reporting stack height (i.e., NPRI requirements): a. Is there a threshold for stack height to be considered as a "stack" for modelling? Grouping of stacks?	No. All stack heights are required for modelling.		
72.	Provide examples of type of operations that fall into criteria.	Automotive assembly plants, wastewater treatment plants, asphalt production facilities, etc.		
73.	The rationale for the inclusion of precursors contaminants should be better explained.	Ambient concentrations of FPM that result from a facility's operations can have two sources: (1) direct emissions of FPM and (2) indirect emissions via the emission of precursor contaminants that result in the secondary formation of FPM. The Town does not regulate precursors to FPM directly. Rather it regulates the health impacts due to the secondary formation of FPM from emissions of precursors		
74.	Are there exemptions such as educational institutions, as with NPRI?	No.		
75.	Is Road Dust being considered as part of total fine particulate emissions? If so, is it being applied in same way as NPRI (i.e. unpaved road traffic only)?	Yes to both questions.	Guidance clarified that dust from unpaved roads (only) to be included, and is based on NPRI thresholds.	Text added to section 3.2.1.2.
C.	**What other tools would help you, or other facility owners and operators, ensure compliance with the by-law?**			
Additional Information Requested				
76.	It is hard to know where the models are available. Where can we find them? ICAP V3.0 is hard to find. Links to CALPUFF, ICAP and inputs to models would be helpful.	Links to ICAP will be posted on the implementation section of the Town's website. Practitioners with appropriate expertise to use CALPUFF would be familiar with the sources for those models. One source is via the US EPA SCRAM web-site.	Links to ICAP will be provided on the Town website.	Text added to section 3.4
77.	Provide hyperlinks *within* the guidance document to provide easy access to the resources and references.	See response to Q#76		
78.	Could the town provide background information about ICAP 3.0?	Link to ICAP 3.0 will be posted on the	See answer to Q#76.	

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		implementation section of the Town's website.		
79.	Will the town provide the CALPUFF modelling software?	No, this is the responsibility of the applicant.		
80.	Suggest providing an example of an assessment report and an approval report.	An example calculation and an example assessment report have been added to the Guidance as appendix 6.6 and 6.7		Appendix 6.6 and 6.7 added.
81.	Provide guidance with respect to annual emissions estimates.	The Town's draft Guidance contains guidance on this issue. Further guidance may be included in the Guidance based on specific requests.		
82.	Clarify whether the facilities definition applies to agricultural operations.	There are no land use exemptions in the by-law and the facility definition applies.		
83.	Suggest findings of review of CALPUFF meteorological data be available to applicants.	This is being considered by the Town.		
84.	Provide a glossary, especially for acronyms.	A glossary for acronyms has been added.	A glossary for acronyms has been added.	s. 1.3 is added to the Guidance.
85.	Clarify whether residential developments will be included.	Only if they meet the "facilities" definition and are major emitters.		
86.	Provide clarification on CALPUFF switches.	Details as to CALPUFF switches are provided in the Town Guidance. A qualified air quality modeller should be involved in the modelling.		
87.	Is the meteorological data/background/land use/topography data, etc. now available for use? If not, when?	The CALPUFF input data (including meteorological input data) will be available along with the finalized Guidance.		
88.	Will the town provide the necessary water temperature/data needed to run CALPUFF with respect to lake effects?	Yes. The CALPUFF input data (including meteorological input data) will be available along with the finalized Guidance.		
89.	ICAP model uses census data. Will this be provided by Oakville?	No. The Guidance explains (section 3.4) that a health-risk assessment is required and provides the methodology. No population data is required.		
90.	It would be great if the town could use a reference standard on pollution control measures, such as, MOE or USEPA Maximum Achievable Control Technology (MACT) or similar.	This is being considered by the town.		
91.	Is there a prescribed format for the application? A specific form? Submission format, DVD, PDF?	None other than a specified in the Guidance.		
92.	Facilities will need time to review the Town Default Input (TDI) data provided by	Noted.		

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	the Town to compare against the default parameters approved for use by the U.S. EPA, as well as the PSU/NCAR MM5 prognostic wind field data, geophysical land use and terrain data provided by the Town. The facility will also need time to review the hourly ozone monitoring data from the six stations identified by the Town, provided background FPM data and Lake Ontario shoreline data provided by the Town that will be used to simulate Lake Breeze effects. None of the data is currently available for review. A process for stakeholder input and discussion should take place.			
93.	The facility would like to request clarification in the Guidance of the term "Secondary Organic Aerosols" to fully understand the SOA background data and the respective modelling requirements.	Text within the Guidance will be amended to clarify SOA.	Text within the Guidance will be amended to clarify SOA.	Text modified in section 3.2.1.3.4
94.	The facility has been unable to find or obtain a copy of ICAP V3.0 and is requesting the Town provide a copy. The facility will also require time to learn how to use the software and understand the effects of the CALPUFF outputs on the ICAP results. To date, no focus group discussions on the use of the ICAP model have taken place. The facility is recommending a separate stakeholder discussion process on the ICAP software to address any concerns in an open forum similar to the focus group of December 8, 2010.	In order to satisfy the requirements of the By-law, it is only necessary to follow the health risk calculation procedure given in the Guidance document. This procedure is based on the ICAP/NICAP method, and uses ICAP/NICAP coefficients. In a site-specific context, the increase in health risk is a linear function of the ambient concentration to which the community within the affected airshed is exposed. Also, see answer to Q#76		
95.	At the meeting held in August regarding Section 4 it was mentioned that a tool was being developed for use by facilities to calculate their $PM_{2.5}$ emissions if their PM_{10} or TSP emissions are known. Is this still intended to be made available? If so, has the tool been reviewed externally? $PM_{2.5}$ releases are very difficult to estimate accurately and there is some concern that an overly conservative approach will place some facilities into the "major emitter" category when not truly appropriate.	There was no mention of a tool to estimate $PM_{2.5}$ emissions given only PM_{10} or TSP emissions.		
OTHER COMMENTS				
Timing and Cost of Compliance				
96.	The cost of, and length of time for, compliance with the by-law are concerns. It would take at least a year and hundreds of thousands of dollars.	See answers to Q#21 and Q#22.		

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97.	The timeline to complete the modelling and health impact study is insufficient. The background files are not yet available for review and full understanding to scope costs to our clients. I would suggest at 6 month extension from the February deadline.	Noted. See answer Q#106.		
98.	*Application Submission Timing* The required timing for notification (Jan 2, 2011) and submission of application for approval packages to the Town (February 1, 2011) is a significant concern given that during the Focus Group session on December 8 it was noted that the CALPUFF/CALMET input files to be provided by the Town will not be available until the end of December. This leaves about a month to run the models and prepare the application package for each facility required to submit an application. Given the complexity of the dispersion models, the significant amount of time required to run the model simulations, the number of facilities requiring applications and the number of qualified consultants with CALPUFF experience, this timing is unrealistic and a more reasonable timeframe would be approximately 4-6 months.	Noted. See answer Q#106.		
99.	A full cost analysis has not yet been completed, but for full compliance with the By-Law, the facility will need more time to discuss the entire scope of work with its Consultants and believes the cost could be in the range of one hundred thousand dollars.	See answers to Q#21 and Q#22		
100.	Given the uniqueness of the by-law approach and the complexity of the proposed application process, adequate time needs to be provided to applicants to prepare documents envisaged by the draft Section 5/6 Guidance document.	Noted. See answer Q#106.	Guidance to reflect Dec 20 Council decision.	Text changed in section 2.1.2
101.	The facility's site model in AERMOD took several months to build. While we understand data can be imported into CALPUFF, the facility is still concerned about the amount of time it will take to review the CALPUFF data, run all the required scenarios and evaluate the data prior to submitting an application.	Noted. See answer Q#106.	Guidance to reflect Dec 20 Council decision.	Text changed in section 2.1.2
102.	Due to the height of the facility paint shop stack (tall stack), a building downwash simulation of the stack utilizing the U.S. EPA's BPIP-PRIME pre-processor will need to be conducted. This also requires additional time.	Noted. See answer Q#106.	Guidance to reflect Dec 20 Council decision.	Text changed in section 2.1.2
103.	Since the guidance is only now under discussion (and data may or may not yet be available), is there still an expectation that all existing facilities must submit their full applications by February 2011?	Noted. See answer Q#106.	Guidance to reflect Dec 20 Council decision.	Text changed in section 2.1.2
104.	February 1 deadline is too strict. Even if the guidance document was finalized today, reporting by February 1 would be impossible. One month is too tight for	Noted. See answer Q#106.	Guidance to reflect Dec 20 Council decision.	Text changed in section 2.1.2

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	format, modelling, internal quality assurance and control.			
105.	Is there a mechanism to request an extension for the application? Even given the fact that there will be a report to Council on December 20, 2010.	No. See answer Q#106.	Guidance to reflect December 20th Council decision.	Text changed in section 2.1.2
106.	Concern was expressed about the timing of the application and the logistics of putting the application together in light of the MOE review underway. The MOE's findings will be released in 15 to 18 months and if the Province decides to regulate fine PM, all the work for the town's application will be in vain.	The December 20th staff report was accepted by Council; the deadline for existing facilities to submit their assessment report is now September 1, 2012.	Guidance to reflect December 20th Council decision.	Text changed in section 2.1.2
107.	What are the costs for an applicant to prepare the application? Can the town provide an estimate?	The level of effort will be commensurate to that required for an AERMOD-based application for a Provincial CofA.		
108.	Given all of the issues noted above, it is clear that additional time is required to finalize the Guidance documents and to provide adequate time for the preparation of high quality applications. We look forward to a timely resolution of this matter.	Noted. See answer Q#106.	Guidance to reflect December 20th Council decision.	Text changed in section 2.1.2
Monitoring				
109.	Is the town considering any long term monitoring to the by-law? Will the by-law be modified in the future based on the outcomes of the monitoring?	Yes, the town will continue to monitor the impact of the by-law. There are several initiatives for monitoring such as the monitors in Oakville-Clarkson airshed operated by MOE, and also monitors in Halton region operated by the Regional Health Department.		
110.	Will the town monitor the economic impacts of the by-law on local businesses?	Yes, the town will work with the Economic Development Department to monitor the impacts.		
Other General Questions and Comments				
111.	In numerous places in the Guidance document the word 'proposed' exists. The Guidance document needs to clarify what needs to be done for existing facilities. This word should not be used in the context of existing facilities.	Noted.	Changes have been made in various sections of the Guidance to clarify any commonalities or differences between proposed and existing facilities.	
112.	Is the town regulating direct or indirect emissions of fine particulate matter?	The Town does not regulate FPM and its precursors directly. Rather it regulates the health impacts due to the FPM and the secondary formation of FPM from emissions of		

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		precursors. The Guidance is clear in that direct emission of FPM and any defined precursors must be included in the assessment.		
113.	What is the town trying to do? What is the purpose of the HPAQB?	The purpose of the bylaw is stated in section 1.1.		
114.	The by-law was developed in haste and it was a surprise to the regulated community. Does this guidance document present the most appropriate approach to modeling?	Yes		
115.	What will happen if the MOE introduces a standard for $PM_{2.5}$? Is there a contingency plan?	If the Province decides to regulate fine PM then approved facilities within Oakville may well have completed most of the work necessary for Provincial approval. See also answer Q#106.		
116.	What if a facility is not approved? What are the next steps?	The by-law will be enforced by the Town.		
117.	How will the Freedom of Information Act affect the application process?	The Town operates under the provisions of the Freedom of Information Act.	Notation added.	Text added to section 3.7
118.	The guidance document is fundamental to comply with the by-law. It helps us interpret the by-law.	Noted.		
119.	The guidance document, as written, is a very technical document. It should be written with clearer language for the lay-person.	Revisions to the Guidance have been made with the lay person in mind. Introductory sections of the document have been written by lay-persons to be understandable for lay-persons. However, technical sections are also required to provide the specific technical guidance for emissions modelling and health assessment.		
120.	A participant requested a list of other attendees at the focus group.	This has been provided by the Town.		
121.	A participant requested a list of comments/questions received to-date, in advance of the December 15 cut-off for comments on the draft guidance document.	This has been provided by the Town.		
122.	What is the process for follow-up input and comments on the draft guidance document?	Answers to comments and questions, and a revised Town Guidance will be made available.		
123.	Overall the rest of the bylaw if fairly clear to understand.	Noted.		