

**SUMMARY OF KEY COMMENTS/ISSUES IDENTIFIED DURING CONSULTATION ON THE
DRAFT REPORT REGARDING THE “EVALUATION OF “ALTERNATIVES TO”
AND IDENTIFICATION OF THE PREFERRED RESIDUALS PROCESSING SYSTEM**

May 30, 2006

Comment: Support for “Additional Diversion”

The Residual Waste Study is very clear that both Durham and York are planning on an initial goal of 60% waste diversion by 2011 and a goal of 75% in the future. The majority of those participating in the consultative process supported these goals although a minority expressed concerns about the ability of the two Regions’ to achieve these goals.

The implications of the report on the evaluation of “Alternatives to” is that both Durham and York adopt a formal hierarchy for their integrated waste management systems to reflect the purpose of the undertaking for the EA Study, as follows:

- At-Source Diversion;
- Thermal Treatment (including energy and materials recovery); and
- Landfill Disposal of Residue.

Comment: Support for “Thermal Treatment” (both conventional combustion, gasification and pyrolysis)

The majority of participants in the consultative process were supportive of “Thermal Treatment” although many had a clear preference for a specific thermal treatment technology such as conventional combustion or plasma gasification. There was significant support for the recognition that while the preferred system was *System 2(a) - Thermal Treatment of Mixed Solid Waste and Recovery of Energy followed by Recovery of Materials from Ash/Char*, that new technologies categorized in System 2(b) – Thermal Treatment of Solid Recovered Fuel may ultimately offer important benefits.

This strongly supports the recommendation that, the competitive process used during the evaluation of “Alternative Methods” allow for the submission of proposals to implement both System 2(a) and System 2(b), and that the final decision on the technologies used to implement the preferred residuals processing system be based on the results of this competitive process.

It is important to note, that as part of the consultation process, a considerable amount of public education was also completed to convey the message, that the Alternatives being considered are State-of-the-Art and do not include older technologies that have given rise to the negative connotations associated with “Incineration”.

Comment: References to European Experience with Thermal Treatment (suggestions to visit, examine and adopt modern incineration methods used in Europe)

The "European Experience" with thermal treatment approaches was consistently referred to during the public consultation sessions, with specific requests that those responsible for selecting and approving the preferred residual waste processing system for Durham and York become very familiar with the state-of-the-art approaches used to manage waste in European nations. Recent European facility delegations involving, elected officials from both Regions, municipal staff and the consulting team were designed to address the concern that in order to be able to make an effective and educated decision some first-hand experience with these European examples, including the technology, political and policy environment, etc. would be necessary.

Issue: Implement Extended Producer Responsibility (have industry manage their own wastes)

There was broad support for Product Stewardship and Extended Producer Responsibility (EPR) from both those that did not agree with the preferred residuals waste processing system, and from those that did support the system but that recognized the diversion benefits of EPR.

In the Annex C-1 report on Additional At-Source Diversion, the current status of EPR in Ontario is noted, along with the assumption that as the existing system under the auspices of Waste Diversion Ontario is primarily a funding mechanism no real effect on diversion would be associated with continued WDO programs in Ontario. Extensive lobbying from all sectors will be needed in Ontario and federally, to achieve any real progress on EPR where the responsibility for end-of-life products would be solely the responsibility of the generator of the product. The participation of Durham and York in municipal lobbying efforts is expected to continue and will be necessary to demonstrate the commitment of both municipalities to diversion being the first priority for the management of waste.

Issue: Preference for other alternatives based on the selective application of various criteria

A number of participants in the consultative process expressed a clear preference for other alternatives based on the selective application of a few of the criteria used in the Study for comparative analysis of the alternative systems. For example, some participants selected System 1 as their preferred system, based on the consideration of emissions to Air including Greenhouse Gas Emissions and greater feasibility, with the large landfill component, to accommodate diversion rates beyond 75%.

Under the Environmental Assessment Act (EA Act), the ‘environment’ is very broadly defined to include the natural, social and economic environment in both a local and global context. The evaluation criteria that were developed and applied to select the preferred system were formulated to address the need to examine all aspects of the environment to meet the need of the EA Act.

The formulation of the evaluation criteria was undertaken with public and agency input during both the preparation of the EA Terms of Reference and early in the process of evaluating alternative systems. The EA Terms of Reference, including the proposed evaluation criteria were approved by the Minister of the Environment.

It would not be acceptable or good EA practice to choose the preferred “Alternative to” based on applying only a select few of the comparative criteria, and to do so would not comply with the approved EA Terms of Reference.

Issue: Concern that a Thermal Treatment Facility will hinder future diversion efforts

It has been claimed that any thermal treatment facility will compete for materials in the waste stream and hinder efforts to achieve higher diversion rates.

It is essential to reinforce that both Durham and York are committed to an immediate goal of 60% waste diversion by 2011 and a goal of 75% in the future.

Diversion was studied in detail as part of the consideration of “Alternatives to” including consideration of what is being achieved worldwide in the area of diversion and the potential to divert additional materials from the Durham/York waste stream. No comparable municipality – including both single and multi family housing - in North America has achieved a diversion rate much beyond 50 percent. Some jurisdictions in Europe have achieved higher diversion rates and the majority of these also use thermal treatment to dispose of the residues that remain after diversion. The utilization of thermal treatment ash or char can add significantly to diversion rates.

If a thermal treatment facility with capacity for the approximately 250,000 tonnes of residual waste projected for Durham and York began operating in 2011 and continued to operate at that capacity through to the end of the study planning period, then increased diversion will be required to offset population growth. An overall diversion rate in excess of 75% would be required to continue to address the study area residual waste management needs.

Thermal treatment facilities are not a barrier to diversion when they are sized and operated appropriately. For example, the Region of Peel has achieved very high diversion rates and thermally processes most of its residual wastes. In practice, it is generally jurisdictions with high cost disposal facilities such as thermal facilities that have high diversion rates while jurisdictions with abundant low-cost landfill disposal facilities generally have lower diversion rates.

There are a variety of contractual mechanisms that can be used to ensure a thermal treatment facility has sufficient input material for economic operation and does not compete with diversion for material. For example, waste from commercial sources could be processed under short-term contracts that can be adjusted to accommodate changes in municipal quantities.

Issue: Concerns regarding air emissions from a Thermal Treatment Facility and the impact on Public Health

Thermal Treatment facilities for municipal solid waste are operated safely and are widely accepted around the world, including Europe, the United States and right here in Brampton. These facilities have extensive air emissions monitoring programs in place to ensure the safety and protection of humans and the natural environment via compliance with stringent regulatory requirements.

In 1999, the Ministry of the Environment (MOE) released a study assessing the risks associated with incineration to human and ecological health. In this study, the MOE concluded that no significant health effects are likely in a typical suburban community located near an incinerator. They also predicted that water and sediment quality near an incinerator would meet ministry guidelines for the protection of aquatic life. Since the release of this document, even more stringent air emissions regulations have been released and enforced by the Province, further reducing the potential impacts related to the types of facilities studied in 1999.

Following the approval of Thermal Treatment as the preferred "Alternative to" by Regional Councils, a comprehensive review of the potential human and ecological impacts of Thermal Treatment, specific to the Durham/York Study area will be undertaken as part of the siting process. Input received from the analysis of the potential for human and ecological health impacts will represent an important component of the siting of a long-term waste processing facility(ies).

Issue: Greenhouse Gas Emissions

Concern was expressed by many of those that participated in the consultative process in regards to the greenhouse gas emissions (GHG) from thermal treatment and the need to address climate change. During the consultative period a study was publicly released by Friends of the Earth (FOE, UK) regarding incineration and climate change, and was referred to by some participants in the consultative process. The FOE study determined that while electricity-only incineration was less climate-damaging than landfilling of waste, it was more climate-damaging than systems with aerobic or anaerobic mechanical-biological treatment and landfilling of stabilized residues. Interestingly, aerobic MBT systems with the use of refuse derived fuel as a coal substitute in cement kilns was found to be relatively equivalent with those systems where the stabilized residue was landfilled.

The FOE study also found that the GHG per Kilowatt hour of power emitted from incinerators that recovered combined heat and power (CHP) was relatively equivalent to that emitted from CHP Gas fired power stations.

In the evaluation of alternative residuals processing systems for Durham and York, it was found that System 2a) ***Thermal Treatment of Mixed Solid Waste and Recovery of Energy followed by Recovery of Materials from Ash/Char*** would have the highest net life-cycle emissions of GHG, and that System 1 ***Mechanical and Biological Treatment with Biogas Recovery*** would have the least. However, it should be noted that for the purpose of evaluating systems it was assumed that with all systems only electrical energy would be recovered. If the recovery of available heat as well as electricity had been factored into the analysis, the thermal treatment systems would have had the lowest life-cycle emissions of GHG.

The findings of the Durham York Residual Waste Study agree with the FOE conclusion that recycling is better than incineration in terms of climate change, and as a result the highest priority is being placed on the recovery of materials from the waste stream to reach a 60 to 75% diversion target, and the evaluation of systems assumed high recovery rates for materials managed by the municipal blue box program, including the high value plastics in the waste stream.

The composition of the residual waste that would be thermally treated in System 2a) (or System 2b) is largely made of materials that cannot be easily recovered by source separated diversion programs or mechanical treatment and that in the most part are difficult to recycle into new materials/products.

Issue: Need for a larger facility to serve additional municipalities in the GTA (including the Wesleyville Site)

The purpose of Durham and York undertaking this EA Study is to find a local solution to waste management issues so that they are not as reliant on export alternatives outside their respective municipal boundaries.

Over the course of the study, it may be apparent that opportunities exist to provide excess capacity in the early stages of the planning period to neighbouring municipalities provided it would benefit the proponents and the broader environment. Municipal solid waste originating from outside the Study Area, particularly from smaller neighbouring communities outside the Greater Toronto Area, would offer a potential waste stream that could be managed by surplus capacity incorporated into the undertaking, should this be determined to be beneficial.

The Wesleyville site falls outside of the municipal boundaries of the Regions of Durham and York. During the evaluation of "Alternative Methods", as set out in Section 6.2 of the approved EA Terms of Reference, Step 6 "Prospective vendors of the technology(ies) will be requested to submit their qualifications and may be invited to submit their own alternative site(s) for consideration. Prospective vendor site(s), if submitted, must clear minimum compliance requirements, such as being located in Ontario, to be included on the short list of sites. Public and agency consultation will be undertaken when the short list of alternative sites has been finalized." Therefore, should OPG wish to have the Wesleyville site included for consideration as a potential short listed site, the EA Terms of Reference does allow for this option.

Issue: The timeframe provided for review and consultation on the Draft Report regarding the evaluation of "Alternatives To"

A few requests for extensions to the 30-day commenting period were received from local municipalities in Durham and York.

The 30-day comment period on the Draft Report is a common timeframe used in many EA Studies and by the MOE for documents that are posted publicly in accordance with the Environmental Bill of Rights for review and comment.

All parties including various agencies and the general public are being invited to comment on information issued throughout the EA Study process, which is projected to be complete in 2008. Comments received following the presentation of the recommendations on the preferred residuals processing system to the Joint Waste Management Group on May 30, 2006, will be documented and addressed where appropriate as the report proceeds through committee and Council in both Regions and as the EA Study progresses.

Given the U.S. border closure issue, an extension of the review timeframes for the Draft Report on the evaluation of "Alternatives To" was not considered by the study team, as this study needs to proceed expeditiously. It should be noted that a number of attendees at the public consultation sessions expressed concern regarding the length of time required to complete the EA Study and implement the preferred alternative and expressed desire that the preferred option be implemented as soon as possible.