



Development Services Staff Report

Report Title:	Draft Odour Guidelines – Proposed Amendments – Environmental Registry of Ontario (ERO)
Report Number:	DS31-2021
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Final Review:	Senior Management Team

Recommendation:

THAT the Council of the Township of Woolwich, receive report DS31-2021 regarding proposed amendments to the Draft Odour Guidelines as posted on the Environmental Registry of Ontario (ERO) for information purposes.

Background:

The Province has released the Draft Guidelines to address Odour for review on the Environmental Registry of Ontario (ERO) for review and comment by July 3, 2021. These proposed guidelines would replace or update the current guidelines. The registry posting notes:

“proposing guidance on how industrial facilities, development proponents and other members of the regulated community can anticipate, prevent, and address odour issues that could be of concern to local residents.

The guidance would help ensure there is:

- less regulatory uncertainty for facilities*
- better coordination with land planning decisions*
- more effective remediation of issues caused by odour mixtures*

Our proposed guidance will provide more clarity on how to identify, prevent, manage, and remediate human health and environmental impacts caused by emitted odour. It includes:

- *clarification on the requirements for potentially odorous facilities applying for an Environmental Compliance Approval (ECA) under section 20.2 of the **Environmental Protection Act***
- *clarification for facilities preparing an Odour Study required by the Renewable Energy Approvals Regulation (**Ontario Regulation 359/09**)*
- *tools to more effectively anticipate and prevent odour issues for new sources of odour and speed up remediation efforts*
- *a process for assessing, mitigating and minimizing odour impacts when a new development is proposed, which supports the proposed Land Use Compatibility Guideline*
- *additional resources for facilities when assessing odours or when preparing a Technology Benchmarking Report for odour*
- *considerations for laboratories in Ontario that assess odour*

By using this guidance, facilities will be able to identify potential odour sources before they are operational and speed up remediation efforts. They will also have best practices and recommendations available to help them mitigate odorous sources over time.

Other information – proposed phase-in period

We (the Province) will consider comments on this proposal when finalizing Ontario's guidance for odour mixtures. We are proposing that the environmental compliance approval application requirements outlined in this proposal be phased in 6 months when adopted."

In addition, the Ministry plans to standardize a number of elements in terms of reporting and providing checklists. The ERO posting goes into some technical details and speaks to ECA and other compliance requirements. For the purposes of this report, staff will focus on the Planning Act implications.

Note – text in italics are direct quotes from the draft guideline information.

Comments:

The intent of the new guidelines is to "help facilities, municipalities and other land use planning authorities avoid or minimize and mitigate potential adverse effects due to odour. The odour guidance and tools will support and link to the separate Land Use Compatibility Guideline (LUCG) proposal to replace several existing D-Series Guidelines by outlining an approach to assess odours as part of the land use planning stage, and if required, a process to minimize and mitigate odours.

The proposed odour guideline provides a clear, consistent and flexible set of technical requirements and tools for the ministry, planning authorities and regulated facilities.

These resources will help:

- *Focus on preventing odour impacts rather than simply reacting to them;*
- *Support industry investment in best practices/management technologies, resulting in cost savings down the line;*

- *Speed up remediation efforts; and*
- *Reduce regulatory uncertainty for any facility with potential odour issues and clarify requirements related to Environmental Compliance Approvals (ECAs).*

The odour guideline is intended to be read with the separate LUCG proposal for an awareness of what to include as part of compatibility studies related to odour. Together with the LUCG, the requirements outlined in this odour guideline will inform the ministry, planning authorities, proponents and/or owners and operators of sensitive land uses and major facilities on how to prevent potential adverse effects resulting from odour and ensure odour is assessed and addressed at the land use planning stage or ECA application stage.”

The Province is proposing to break down uses into the following Tiers.

- Tier 1 – (low risk) but if properly managed should be able to operate without impacting a receptor outside of the setback. Examples include – printing ink manufacturing, asphalt paving mixture, municipal and private communal wastewater facilities, crematorium, meat processing.
- Tier 2 – (high risk) potential to cause significant odours. Operation should have a Best Management Practices Plan (BMPP) to minimize odours. Examples: cooking or drying animal products, municipal wastewater facilities, food frying, waste transfer stations.
- Tier 3 – (significant risk) likely to cause significant odours. Should develop a BMPP and look to odour control strategies. Examples: large wastewater treatment facilities, wet corn milling, anaerobic digesting, rendering, animal or poultry slaughtering.

When a Planning Act application triggers the need for an odour study (i.e., proposing a sensitive land use is within the Area of Influence (AOI) or Minimum Separation Distance (MSD)), the compatibility studies will determine whether adverse effects to sensitive land uses from an existing or planned major facility or impacts to major facilities are expected.

- If a compatibility study shows that adverse effects to sensitive land uses or impacts to major facilities are expected at a proposed separation distance, mitigation measures must be identified. Implementation of identified mitigation measures must be required as part of the planning approval process, and they must be maintained over time.
- If a proposed new sensitive land use is located within the AOI of a major facility and mitigation measures are identified or if a proposed new sensitive land use is located in the MSD of a major facility, a Demonstration Of Need study is required.

Overall, the guidelines are clearer than the current guidelines based on more recent technical data. The same concept of attempting to separate incompatible uses will

continue as well as using methods to reduce or mitigate any potential concerns where appropriate.

It is likely that the changes will increase the need for studies to be completed, which then increases costs to develop, may limit intensification proposals and is likely to trigger the need for peer reviews, which also increases the costs.

As the implementation and approval of the studies is by the Region, Township staff will need to continue to work with the Region in regard to the review of such studies and its' subsequent implementation. Working together to determine when studies are required and then the desired methodology and format of the same will help in reviewing these reports.

Township staff have no recommended changes or comments to the Province in regard to the proposed changes. This report is for information purposes only.

Interdepartmental Impacts: None

Financial Impacts: None

Strategic Plan Impacts:

- *Planning for Growth and Exploring Economic Development Opportunities*
 - *Ensuring managed and sustainable community growth and development*

Conclusion:

This report be received for information purposes, for Council to be aware of the proposed changes to the Compatibility Guidelines as proposed by the Province.

Attachments:

Appendix 'A' – Proposed Definitions

Appendix 'B' – Proposed Classification Table

APPENDIX A

Appendix B – Definitions

The following definitions clarify the odour screening form activities and processes, and where applicable, are the same definitions listed in the 'EASR Publication'.

Anaerobic Digestion has the same meaning as in Regulation 347 of the Revised Regulations of Ontario, 1990 made under the *Environmental Protection Act*.

Area of influence has the same meaning as in the Land Use Compatibility Guideline.

Biofuel has the same meaning as in Ontario Regulation 160/99 made under the *Electricity Act, 1998*.

Biomass has the same meaning as in Ontario Regulation 160/99 made under the *Electricity Act, 1998*.

Blowing or expanding foam products means a manufacturing processes in which foam products are creating using a chemical or physical blowing agent.

Class 3 Area means an area where the background sound level during the day and night is dominated by natural sounds

Coating means a product that forms a film when it is applied to a surface but does not include a water-based product that has a volatile organic compound concentration that is 50 grams per litre or less.

Composting has the same meaning as in Regulation 347 of the Revised Regulations of Ontario, 1990 made under the *Environmental Protection Act*.

Cooking or drying animal products means an industrial process that includes the heating of or removing of moisture from animal products to create animal food or other animal products. This process does not include the manufacturing of food for human consumption.

Crematory means a facility where human or animal bodies are incinerated.

ECA Director means the Director appointed under section 5 of the *Environmental Protection Act* in respect of Part II.1 of that Act.

Ethanol production means an industrial process that produces ethanol using biomass or other food waste.

Food frying means an industrial process in which food for human consumption is fried using edible oils or fats.

Landfill site means a site where waste is disposed of by deposit, under controlled conditions, on land or on land covered by water, and includes compaction of the waste into a cell and covering the waste with cover materials at regular intervals.

Leaf and yard waste includes waste consisting of natural Christmas trees and other plant materials but not tree limbs or other woody materials in excess of 7 centimetres in diameter.

Major facility has the same meaning as in the Land Use Compatibility Guideline.

Minimum separation distance has the same meaning as in the Land Use Compatibility Guideline.

Planning authority has the same meaning as in the Land Use Compatibility Guideline.

Plastic extrusion or melting refers to manufacturing processes which involve the melting or extrusion of plastics. This process includes all plastics including PE, PVC, ABS, HDPE, and others.

Printing means a printing process at a facility and includes lithographic printing, flexographic printing, digital printing, rotogravure printing, and screen printing.

Printing ink means an ink used in a printing process but does not include an ink that has a volatile organic compound concentration that is 50 grams per litre or less.

Proponent has the same meaning as in the Land Use Compatibility Guideline.

Putrescible Waste means waste of vegetable or animal origin of a similar nature and characteristics, that is liable to become putrid, rotten or decayed, but does not include leaf and yard waste.

REA Director means the Director appointed under section 5 of the *Environmental Protection Act* in respect of section 47.5 of that Act.

Resins means any natural or synthetic organic compound consisting of a non-crystalline or viscous liquid substance that can potentially release odours when used, and includes:

- Amino resins;
- Phenolic resins;
- Vinyl ester resins;
- Acrylonitrile-butadiene-styrene (ABS) resins;
- Acrylic resins; or,
- Polystyrene resins.

Rubber means an elastomeric material and includes natural rubber as well as synthetic elastomers.

Scented product means a non-edible product produced for purposes that includes the discharge of odour, such as candles or bath products.

Scented product manufacturing means a manufacturing process in which scented products are produced or used in the process.

Sensitive land use has the same meaning as in the Land Use Compatibility Guideline.

Spraying operation means a process in which a coating is applied to a surface by way of spraying but does not include a printing process or a process that applies a coating using a spray can, electrostatic painting or electrophoretic painting or the application of a coating as part of routine maintenance at the facility.

Thermal treatment has the same meaning as in Regulation 347 of the Revised Regulations of Ontario, 1990 made under the *Environmental Protection Act*.

Waste Transfer and/or Processing Station means a waste disposal site that is a transfer station, as defined in Regulation 347 made under the *EPA*, or that is used for the purpose of processing waste (including sorting, baling, grinding, crushing, compacting, etc.).

Wastewater sludge means a mixture of non-stabilized solids separated from the liquid train of various types of wastewater treatment.

Woodwaste has the same meaning as in Regulation 347 of the Revised Regulations of Ontario, 1990 made under the *Environmental Protection Act*.

APPENDIX B

Appendix A – Tiers for Odorous Activities and Processes

The Tiers for odorous activities and processes other than those addressed in the EASR publication are listed below in Tables A – F. If a facility is registered to one of the Technical Standards listed Table G in respect of every contaminant set out opposite the Technical Standard in Table G, they will be screened out by the OSF.

The Tiers for odorous activities and processes governed by the Air Emissions EASR Regulation can be found in Tables 1-4, in Chapter 4 of the EASR Publication (Tier 1 activities and processes are set out in Tables 1 and 2; Tier 2 activities and processes are set out in Tables 3 and 4).

This guideline does not apply to persons applying for an ECA for a waste disposal site or waste management system that is solely for the disposal or management of hauled sewage.

Table A: Tier 1 Activities that Screen In

NAICS Code	Description	Tier	Setback Distance (m)
221320	Municipal and private communal wastewater facilities (design capacity of facility $\leq 25,000$ m ³ /day)*	1	500
325510	Paint and coating manufacturing***	1	500
324121	Asphalt paving mixture and block manufacturing (portable)**	1	500
325520	Adhesive manufacturing***	1	500
325910	Printing ink manufacturing***	1	500

*This applies only to municipal and private communal wastewater facilities, and not sewers, pumping stations, septic systems or industrial facilities with wastewater treatment.

**For portable asphalt paving mixture and block manufacturing facilities that do not submit a BMPP with their ECA application, the ECA Director may issue an ECA with a condition that the facility not be located within 500m of an odour receptor.

***Does not include manufacturing of a water-based product that has a volatile organic compound concentration that is 50 grams per litre or less.

Asphalt paving mixture and block manufacturing (portable) - means an asphalt mix facility that is capable of being transported and is installed proximate to the location where the asphalt mix is used.

Table B: Tier 1 Odorous Processes that Screen In

Odorous Process	Tier	Setback Distance (m)
Blowing or expanding foam products	1	500
Crematory	1	200

Odorous Process	Tier	Setback Distance (m)
Meat and poultry processing	1	300
Landfills	1	2000
Thermal treatment of waste (non-biomass)	1	2000
Plastic extrusion or melting	1	100
Printing (printing rates > 100kg/hr, and < 400 kg/hr)	1	100
Process using resins*	1	250
Scented products manufacturing (<10 million kg/year)	1	500
Spraying operations (< 10 L/hr)*	1	100
Waste transfer and/or processing station - indoor (residential or IC&I)**	1	150

*Does not include water-based products that have a volatile organic compound concentration 50 grams per litre or less.

**'indoor' means that the operations and any storage is enclosed in a building or structure.

Meat and poultry processing means a facility engaged in meat processing, including but not limited to curing, smoking, cooking, cutting or packaging meat, and does not include animal slaughtering, rendering or tallow production.

Printing (printing rates > 100 kg/hr to < 400 kg/hr) means a printing process engaged in at a facility at which the total of the maximum hourly application rates of all printing inks used in printing processes at the facility is greater than 100 kg/hr and not greater than 400 kg/hr.

Process using resins means a manufacturing processes which require the use of a resin(s) to complete the process but does not include the use of resins for maintenance activities or the manufacturing of resin itself.

Scented products manufacturing (<10 million kg/year) means a manufacturing process in which scented products are produced or used in the process at an annual rate less than 10 million kg/year.

Spraying operation (< 10 L/hr) means a spraying operation engaged in at a facility at which the total of the maximum hourly application rates of all coatings used in spraying operations at the facility is less than 10 L/hr.

Waste transfer and/or processing station (residential or IC&I) means a waste transfer and/or processing station where either residential or industrial, commercial and institutional (IC&I) waste is stored, processed or transferred.

Table C: Tier 2 Activities that Screen In

NAICS Code	Description	Tier	Setback Distance (m)
221320	Municipal and private communal wastewater facilities (design capacity of facility > 25,000 m ³ /day and ≤ 100,000 m ³ /day)*	2	500
322121	Paper (except newsprint) mills**	2	1000
322122	Newsprint mills**	2	1000
322130	Paperboard mills**	2	1000
324121	Asphalt paving mixture and block manufacturing**	2	500
324122	Asphalt shingle and coating material manufacturing	2	500

* This applies only to municipal and private communal wastewater facilities, and not sewers, pumping stations, septic systems or industrial facilities with wastewater treatment.

**Does not include facilities registered to the Pulp and Paper – Industrial Standard in respect of total reduced sulphur compounds or registered to the Asphalt Mix – Industrial Standard (proposed) in respect of Volatile Organic Compounds, as the technical standards focus on addressing emissions from the potentially odorous sources.

Table D: Tier 2 Odorous Processes that Screen In

Odorous Process	Tier	Setback Distance (m)
Cooking or drying animal products	2	500
Composting – leaf and yard waste only	2	500
Food frying	2	500
Printing (printing rates ≥ 400 kg/hr)	2	500
Scented products manufacturing (≥10 million kg/year)	2	500
Wastewater sludge pelletization	2	750
Spraying operations (≥10 L/hr)*	2	500
Vulcanized rubber product manufacturing	2	500
Waste transfer and/or processing station - outdoor (residential or IC&I)	2	500

*Does not include spraying of a water-based product that has a volatile organic compound concentration of 50 grams per litre or less.

Composting – leaf and yard waste only means a leaf and yard waste composting operation engaged in at a facility. This does not include small-scale composting operations such as community gardens, etc.

Printing (printing rates > 400 kg/hr) means a printing process engaged in at a facility at which the total of the maximum hourly application rates of all printing inks used in printing processes at the facility is greater than 400 kg/hr.

Scented products manufacturing (≥ 10 million kg/year) means a manufacturing process in which scented products are produced or used in the process at an annual rate equal to or greater than or equal to 10 million kg/year.

Spraying operation (≥ 10 L/hr) means a spraying operation engaged in at a facility at which the total of the maximum hourly application rates of all coatings used in spraying operations at the facility is greater than or equal to 10 L/hr.

Vulcanized rubber manufacturing means a manufacturing process in which rubber is vulcanized by being heated in the presence of sulphur or sulphur compounds.

Waste transfer and/or processing station (residential or IC&I) means a waste transfer and/or processing station where either residential or industrial, commercial and institutional (IC&I) waste is stored, processed or transferred.

Wastewater sludge pelletization means a process engaged at a facility where wastewater sludge is dewatered, dried and pasteurized into a pelletized form.

Table E: Tier 3 Activities that Screen In

NAICS Code	Description	Tier	Setback Distance (m)
221320	Municipal and private communal wastewater facilities (design capacity of facility $\geq 100,000$ m ³ /day)*	3	n/a
311221	Wet corn milling	3	n/a
311224	Oilseed processing	3	n/a
311225	Fat and oil refining and blending	3	n/a

*This applies only to municipal and private communal wastewater facilities, and not sewers, pumping stations, septic systems or industrial facilities with wastewater treatment.

Table F: Tier 3 Odorous Processes that Screen In

Odorous Process	Tier	Setback Distance (m)
Anaerobic digestion**	3	n/a
Animal or poultry slaughtering	3	n/a
Biofuel production*	3	n/a
Composting other than leaf and yard waste	3	n/a
Ethanol production	3	n/a
Rendering or tallow production	3	n/a
Thermal Treatment of biomass, other than woodwaste*	3	n/a
Waste transfer and/or processing station (putrescible)	3	n/a

*Does not include facilities applying for a REA. Facilities applying for a REA are required to follow the odour requirements listed in O. Reg. 359/09

**This does not include municipal and private communal wastewater facilities with an anaerobic digester that only process wastewater sludge.

Animal or poultry slaughtering means a manufacturing process engaged at a facility that slaughters live animals but does not include facilities that solely process meat.

Composting – other than leaf and yard waste means a composting operation engaged in at a facility other than leaf and yard waste composting. This does not include small-scale composting operations such as community gardens, etc.

Rendering or tallow production means a manufacturing process engaged at a facility that renders animal fat, bones, meat scraps or other animal parts.

Waste transfer and/or processing (putrescible) means a waste transfer and/or processing station accepting or storing putrescible waste such as SSO, fats, oils, biosolids, leachate, agricultural, etc.

Table G: Existing Technical Standards, that if registered to, a facility will Screen Out

Technical Standard	Contaminants / Requirements
Foundries – Industry Standard	VOCs
Forest Products – Industry Standard	Acrolein
Pulp and paper – Industry Standard	TRS
Petroleum Refining - Industry Standard	Benzene
Petrochemical - Industry Standard	Benzene, 1,3-Butadiene
Asphalt Mix – Industry Standard (proposed)	VOCs

Note: Other technical standards are under development and once published, may be considered in the screening process / OSF.

Please refer to the definitions in Appendix B for further clarification.