# Appendix C

Fugitive Dust and Odour Best Management Practices Plan



# waste connections of canada inc. Best Management Practices Plan for Fugitive Dust and Odour Control

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# 1.0 Site Description

Waste Connections of Canada Inc. (Waste Connections) owns and operates the Ridge Landfill located at 20262 Erieau Road near Blenheim, Ontario, in the Municipality of Chatham-Kent (Ridge Landfill or Site).

Waste Connections is proposing an expansion of the Ridge Landfill to continue to provide long-term municipal solid waste (MSW) disposal capacity. The Ridge Landfill is an important component of the waste management services provided by Waste Connections and is a prominent business within the local community. The Ridge Landfill currently consists of three distinct waste disposal areas: The Old Landfill, the West Landfill, and the South Landfill. The proposed expansion includes a vertical development on the existing Old Landfill, and the horizontal expansion of the West Landfill and South Landfill. A description of the landfill footprints is provided below:

### Old Landfill (including vertical expansion)

The proposed expansion will comprise an approximately 30 m vertical expansion and a minor infill expansion to the east within the existing 55.2 ha approved waste fill area. The proposed minor East Infill is designed to optimize the Old Landfill final contours and provide surface water drainage improvements and will have a waste fill area of 2.2 ha.

### West Landfill (including West Landfill expansion area)

The West Landfill has an approved waste fill area of 55.3 ha. The proposed expansion of the West Landfill comprises a 32.1 ha lateral expansion to the south. The West Landfill will have a combined waste fill area of 87.4 ha.

### South Landfill (including South Landfill expansion area)

The proposed expansion includes both a vertical expansion of approximately 5m over the existing South Landfill, as well as a 22.8 ha lateral expansion towards the south. The South Landfill will have a combined waste fill area of 43.1 ha.

This Best Management Practices Plan (BMPP) for fugitive dust and odour control has been developed to support an application for an amendment to Environmental Compliance Approval (ECA) (Air & Noise) No. 7958-7BMQGT for the Site. This BMPP identifies potential sources of fugitive dust and odour and the mitigation measures the Site currently follows, and proposes, to reduce the site-wide potential for dust and odour generation and off-Site effects.

# 2.0 ECA Requirements

This BMPP is provided as documentation to support an application for an amendment to Environmental Compliance Approval No. 7958-7BMQGT.

# 3.0 Process Description and Process Mapping

The identification of potential fugitive dust and odour sources requires an understanding of all processes and activities that are considered normal or typical for the landfill as well as sources. This section provides an overview of the process description and process flow within the Site.

### 3.1 Process Description

The Ridge Landfill currently receives approximately 98% solid, non-hazardous industrial, commercial, and institutional (IC&I) waste and 2% residential waste for disposal.

Site processes consist of: receiving waste materials; material transfer, handling and storage (transfer of soil and recycled aggregate at two storage piles); landfill gas collection and flaring; leachate collection; concrete crushing operations; and vehicle activities along the on-Site haul route.

### 3.2 Process Mapping – Source Identification

A process flow diagram and fugitive dust and odour source locations are provided in the Emission Summary and Dispersion Modelling Report for the Ridge Landfill expansion.

# 4.0 Identification of Potential Sources of Fugitive Dust and Odour

The following sections identify the potential sources of fugitive dust and odour emissions.

### 4.1 Potential Sources of Fugitive Dust

The layout of the Site will vary as the location of vehicle activity, material processing, and material handling/storage change during different phases of landfill development. The continued construction and use of temporary roadways (on-Site haul roads) will be implemented throughout the landfill. As such, the location of potential fugitive dust sources will vary throughout the landfill development.

### 4.1.1 Potential Fugitive Dust Sources under Normal Operating Conditions

The potential fugitive dust sources associated with Site operations are as follows:

- On-site vehicle traffic on paved and unpaved roads;
- Material processing (crushing, screening, and conveying); and
- Material handling (loading/unloading) and storage.

Mechanisms for fugitive dust emissions from the sources above are described in the following sections.

### 4.1.1.1 On-Site Vehicle Activity

A potential source of fugitive dust generation is vehicle activity along on-Site access roads. Potential mechanisms for the generation of fugitive dust emissions from the on-Site paved and unpaved access roads include:

- Wind-blown dust from the surface of unpaved access roads; and
- Entrainment of dust due to vehicular movements on roads.

### Paved Roadways

The main access road is approximately 1,000 m long, providing access to each of the landfill footprints. The main access road has two lanes, a paved surface, and gravel shoulders along its entire length.

### **Unpaved Roadways**

The main access road will be extended using unpaved roadways to provide access to the selected expansion areas. Single lane maintenance perimeter roads are currently constructed around the Old Landfill, West Landfill and South Landfill. An unpaved access road will be provided to the existing/future leachate management area and landfill gas (LFG) management area.

Temporary haul roads over the waste fill area will be constructed as needed to provide access to the landfill working face during the operational phases of the Site expansion. After phases of the proposed expansion are complete, permanent roads built with concrete rubble or gravel will remain as service roads to the top of the landfill.

### 4.1.1.2 Material Processing

Wood chips are used at the landfill as temporary road surface, mulching, or as daily cover. Wood chipping operations are performed by a contractor and include the use a mobile grinder unit and occur infrequently on a seasonal basis.

Crushed concrete is used on-Site as road base. Concrete crushing operations are performed by a contractor and include the use a mobile crusher unit and occur infrequently on a seasonal basis.

The location of the wood chipping and concrete crushing operations vary throughout the lifecycle of the landfill.

Wood chipping and concrete crushing operations are inherently a potential source of fugitive dust. The chipping and crushing operations mechanically generate suspended particulate matter with the potential to become entrained in the air.

### 4.1.1.3 Material Handling and Storage

The Site operations include the use of soil and aggregate stockpiles (storage piles). Topsoil and soil from the excavation of development cells and stormwater ponds are stockpiled at the Site. The location of the storage piles will vary throughout the lifecycle of the landfill. There are currently two (2) storage piles located on-Site.

The transfer of material containing granular material (such as soil or aggregate) can result in the generation of fugitive dust. The mechanical disturbance and exposure of this material presents the potential for suspended particulate matter emissions.

Storage piles of soil or aggregate can also present a potential for fugitive dust emissions due to wind erosion of exposed areas.

# 4.1.2 Potential Fugitive Dust Emissions from Sources under Upset, Other Conditions, or on an Intermittent/Occasional Frequency

The magnitude of fugitive dust emissions may change in response to unfavorable climate conditions (i.e., extreme heat, drought, and/or wind gusts).

Periods of excessive heat, minimum precipitation, wind gusts, or any combination may result in increased susceptibility of fugitive dust mobilization.

### 4.2 Potential Sources of Odour

The location of activities on the Site will vary as the location of the active working face and further development of the LFG and leachate collection systems change throughout different phases of landfill development. As such, the location of potential odour sources will vary throughout the landfill development.

### 4.2.1 Potential Odour Sources under Normal Operating Conditions

The potential odour sources associated with Site operations are as follows:

- Exposed waste at the active working face;
- Waste transport, handling, and storage;
- Fugitive emissions of landfill gas across the landfill footprint; and
- Fugitive emissions from the leachate collection system.

### 4.2.1.1 Exposed Waste (Active Working Face)

Exposed and agitated areas of waste such as the active working face are potential sources of odour at the landfill. The landfill receives and deposits a variety of waste types with different odour intensities. Municipal sewage sludge is expected to be the waste with the strongest odour to be received at the Site.

The location of the active working face will vary throughout the lifecycle of the landfill.

Potential mechanisms for the generation of strong odours from areas with exposed waste, such as the active working face, include:

- Waste being transported or stored without soil or alternative waste cover;
- Potent waste materials resting atop the active working face or other exposed areas;
- Excavation of waste to create a hole for disposal of special waste;
- Emission of landfill gas associated with the decomposition of waste; and
- Municipal sewage or other waste containing potent odours placed at the surface of the active working face.

### 4.2.1.2 Landfill Gas

Landfill gas is produced from the decomposition of waste and includes malodorous compounds. The Ridge Landfill operates a landfill gas collection system that is designed to maintain a high collection efficiency.

The Site currently operates two (2) LFG enclosed flares and will be installing a third enclosed flare in the near future to accommodate the LFG collection efficiency being proposed by the Site. The three (3) flares are approved under the Site's ECA No. 7958-7BMQGT.

The Site is proposing the installation of two (2) additional LFG enclosed flares to accommodate the increased LFG generation that will result from the landfill expansion.

The proposed landfill gas collection system is comprised of the following major components:

- LFG collection system (i.e., vertical gas extraction wells and/or horizontal collection trenches, wellheads, LFG header pipe, LFG sub-header, and lateral piping);
- Blowers and Flares; and
- Condensate management system.

Landfill gas that is not collected is anticipated to be fugitively released across the landfill footprints and generates the potential for off-property odour nuisance impacts.

### 4.2.1.3 Landfill Leachate

Landfill leachate is generated when rainfall comes into contact with decomposing waste. The Ridge Landfill operates a leachate collection system comprised of an on-Site system of pipes and drainage aggregate beneath (South and West Landfills) or around the landfill footprint (Old Landfill) designed to capture and convey the leachate to the forcemain and ultimately to the Blenheim Wastewater Treatment Lagoons (BWTL).

Components where the leachate is exposed (i.e., manholes, wet wells, riser pipes, and cleanouts) are potential sources for fugitive odour emissions. These components are either enclosed or buried limiting the potential for the generation of odourous emissions.

# 4.2.2 Odour Emissions from Sources under Upset, Other Conditions, or on an Intermittent/Occasional Frequency

The intensity of odorous emissions may alter in response to unfavorable climate conditions (i.e. warm, humid, and/or low wind).

During warm and humid climate conditions bacteria may grow faster and increase the release of nuisance odour.

During periods of low wind, when the air is stagnant, odorous compounds may accumulate and increase the potential for nuisance odour to occur at off-Site receptors.

# **5.0** Best Management Practices

The following sections describe the best management practices (BMPs) developed for the Ridge Landfill to mitigate the potential for fugitive dust and odour emissions.

### 5.1 Fugitive Dust Best Management Practices

The Site implements BMPs to mitigate the potential for fugitive dust. Regular site inspections will be conducted to identify fugitive dust emissions sources with the potential to cause off-Site impacts. Once identified, the source will be documented, and appropriate corrective action will be implemented as required.

The Site-wide dust control measures and practices are described in the sections below.

### 5.1.1 On-Site Vehicle Activity

### 5.1.1.1 Paved Roadways

BMPs that are in place at the Ridge Landfill to mitigate the potential for fugitive dust generation from on-Site vehicle activity along the paved roadway are as follows:

- Vehicles entering the Site are restricted to a maximum speed of 40km/h. Signage is posted at the Site and communicated to vehicles entering the Site by the scale house attendant;
- In the event of visually observed high levels of dust generation, the paved on-Site roads are wet swept to minimize the potential for silt buildup;
- During the summer months (May to September), paved roads will be watered on an as needed basis. The decision to water the Site roadways will be based on multiple factors including the anticipated volume of vehicle traffic and/or recent weather conditions (i.e., periods of drought over previous 24 hours);
- External haul routes, particularly in the vicinity of the Site entrance, will be cleaned of soil/mud as required (when weather permits the use of a vacuum sweeper truck). The haul route will also undergo visual inspections to confirm the need for clean-up activities; and
- MECP-approved dust suppressants, with the exception of calcium chloride, sodium chloride and
  oil, may be used as necessary to enhance road surface conditions and reduce fugitive dust.
  Calcium chloride and oil suppressants will not be used within the Site area because the chemicals
  could enter the groundwater or surface water systems; this could also contaminate samples
  collected in the monitoring program.

### 5.1.1.2 Unpaved Roadways

BMPs that are in place at the Ridge Landfill used to mitigate the potential for fugitive dust generation from on-site vehicle activity along the unpaved roadways are as follows:

- During the summer months (May to September), unpaved roads will be watered on as needed basis. The decision to water the site roadways will be based on multiple factors including the anticipated volume of vehicle traffic and/or recent weather conditions (i.e. periods of drought over previous 24 hours);;
- Gravel is used as the surface material for the landfill perimeter roads and the haul roads to the
  top of the landfill. The low silt content of gravel reduces potential dust emissions. Waste materials
  with low silt content, such as construction rubble or wood chips, may be used as a surface
  improvement for roads leading to the landfill area and the stockpiles;
- MECP-approved dust suppressants, with the exception of calcium chloride, sodium chloride and
  oil, may be used as necessary to enhance road surface conditions and reduce fugitive dust.
  Calcium chloride and oil suppressants will not be used within the Site area because the chemicals
  could enter the groundwater or surface water systems; this could also contaminate samples
  collected in the monitoring program;
- Equipment travel will be restricted to designated routes, minimizing disturbance to exposed soils;
   and
- Weather conditions, such as wind speed and direction, and visible dust on-Site will be monitored
  by the Site foreman and Site activities along the on-Site haul roads will be adjusted as required to
  reduce off-Site fugitive dust emissions. Such activities may include temporary stoppage of specific
  operations that have a high potential to generate dust and increasing the frequency of watering
  events.

### 5.1.2 Material Processing

All dust mitigation measures associated with material processing (e.g. concrete crushing and wood grinding) will be the responsibility of the processing contractors and are not described in this document.

### 5.1.3 Material Handling and Storage

BMPs to mitigate the potential for fugitive dust generation from material handling and storage activities are as follows:

- To minimize wind erosion of bare soil surface, final covered landfill areas and stockpile slopes that
  are to remain undisturbed for long periods (i.e., over 6 months), will be seeded and/or
  hydroseeded to establish vegetation;
- During periods where areas of exposed soil are a noticeable source of dust, water application as a dust suppressant will be considered;
- Further implementation of naturalized site perimeter screening berms in place of large stockpiles will be implemented where practical; and
- Weather conditions, such as wind speed and direction, will be monitored by the site foreman and material handling and storage activities adjusted as required to reduce off-site fugitive dust

emissions. Such activities may include temporary stoppage of specific operations that have a high potential to generate dust and increasing the frequency of watering events.

### Odour Best Management Practices 5.2

The Site implements BMPs to mitigate the potential for odour emissions. Regular Site inspections will be conducted and include a qualitative assessment of on-Site odours. Should odour emissions with potential to migrate off-Site be identified, the source will be identified, documented, and appropriate corrective action will be implemented as required.

The site-wide odour control measures and practices are described in the sections below.

### 5.2.1 **Exposed Waste (Active Working Face)**

BMPs to mitigate the potential for odour generation from exposed waste at the active working face are as follows:

- A minimum of 15 cm of MECP-approved cover material will be applied to the working face at the close of each day;
- The size of the active working face will be kept to a practical minimum as dictated by the scheduled receipt of waste;
- Receipt of wastes containing very strong odours (e.g. municipal sewage sludge) will be scheduled and managed to minimize the amount of time the waste is exposed; and
- Implementation of odour suppression agents may be used as an additional measure if strong odours are detected by staff or during Site inspections.

### 5.2.2 **Landfill Gas**

BMPs to mitigate the potential for odour emissions from LFG fugitively released at the landfill footprints are as follows:

- The Site is equipped with a LFG collection system. The LFG is currently collected and directed to LFG flares for the destruction of odorous compounds;
- Temporary horizontal LFG collectors may be installed to control odours within unfinished areas of the landfill until the area achieves final grade and permanent LFG vertical wells are installed;
- If performance of the LFG collection system or blower/flare station is not adequate:
  - improvements could include addition of new wells/horizontal collectors or alteration/closure of existing wells for gas collection; and
  - Blower/flare station modifications could include alteration of equipment, gas treatment processes, or operating procedures.
- Regular inspections of the landfill cover will be conducted to identify any cracks or fissures to be filled with cover soil as weather conditions permit.

### 5.2.3 **Landfill Leachate**

BMPs to mitigate the potential for odour emissions from landfill leachate throughout the leachate collection system are as follows:

- Emissions from the leachate collection system are reduced by providing storage in a closed leachate storage tank to be pumped through the forcemain for treatment;
- Leachate manholes, wet wells, riser pipes, and cleanouts will be sealed. Other leachate management system components are either enclosed or buried; and
- Any leachate seeps will be promptly repaired (as weather conditions permit and based on equipment availability) to prevent odours.

### BMPP Inspection, Maintenance, and 6.0 **Monitoring Procedures**

The following sections describe the various Site inspection, maintenance, and monitoring procedures that will be conducted at the Site to prevent fugitive dust and odours from having off-Site effects.

### Site Inspection and Maintenance 6.1

Routine Site inspections allow for Waste Connections personnel to identify any potential sources of fugitive dust or odours and initiate responsive actions to prevent these emissions from having off-Site impacts.

The inspection and maintenance procedures provided in the following sections are specific to fugitive dust and odour. A fulsome Site-wide inspection and maintenance program employed at the Site is described in the Ridge Landfill Expansion Design and Operations Report dated March 2020.

### 6.1.1Inspection

Waste Connections maintains a Site inspection program covering activities that could potentially lead to nuisances or environmental concerns from fugitive dust and odour. Inspections will occur on a daily, weekly, and monthly basis for the Site and adjacent properties.

Daily inspections will be made, as required, to investigate specific causes of fugitive dust or odour from routine operations and/or for specific inspection items.

Weekly inspections will be conducted to determine the condition of the following with respect to fugitive dust and odours:

- Roadways (paved and unpaved);
- Drainage works (i.e., ditches, culverts, berms, ponds);
- Condition of final cover;
- Working area (including litter fences);
- Scales, maintenance and administration buildings and any other building located on-Site;
- Excavated areas and leachate collection systems;
- Buffer areas surrounding the Site; and
- Storage piles.

Monthly inspections will be conducted to determine the condition of the following:

- Settlement areas or depressions on the waste mound;
- Shear and tension cracks on the waste mound;
- Erosion and sedimentation in the surface water drainage system;

- Presence of ponded water on the waste mound;
- Adequacy of cover material; and
- Evidence of vegetative stress on or adjacent to the waste mound.

A sample fugitive dust Site inspection form is provided in **Appendix A**.

A sample odour Site inspection form is provided in **Appendix B**.

### 6.1.2**Routine Maintenance**

Routine maintenance will be employed at the landfill including the following activities:

- The paved access road will be swept;
- On-Site haul roads will be regraded, and granular material applied as required;
- Dust suppression activities will be employed as required;
- Exposed areas with erosion potential will be regraded, have additional earth cover applied, and be vegetated, as necessary; and
- Leachate collection pipes and manholes will be video inspected and cleaned annually as per the conditions set out in the Design and Operations Report dated March 2020.

### Monitoring Procedures 6.2

A comprehensive operational, development, and environmental monitoring program is implemented at the Site and described in the Design and Operations Report dated March 2020.

### Recordkeeping Practices 7.0

Maintaining records of Site conditions provides a systematic approach to Site management, tracks operations that can assist in identifying the potential for fugitive dust or odorous emissions, and provides details of activities undertaken should an odorous or fugitive dust emission complaint be received.

The following sections describe the recordkeeping practices used for the Site that pertain to fugitive dust and odour inspections and monitoring.

### Site Inspection Record Keeping Practices 7.1

Site inspection records will be recorded as a written log or a dedicated electronic file shall be retained on-Site until they are included in the Annual Site Development, Operations and Monitoring Report. Inspection records shall include the following information:

- Name and signature of person that conducted the inspection;
- Date and time of the inspection;
- A list of deficiencies discovered, if any;
- Recommendations for remedial action; and
- Date, time and description of actions taken.

The complete Site inspection records should include the following information:

- Daily inspection reports, when such inspections occur;
- Weekly inspection reports;
- Monthly inspection reports;
- A record of the application of any dust suppressants;
- A record of complaints received and actions taken to resolve them;
- A record of the total quantity of waste received and disposal area;
- A record of the type of daily, intermediate, and final cover used;
- A record of leachate discharged from the Site; and
- A record of any out of service periods.

The records of the Site inspections will be retained on-Site for a minimum of two (2) years.

### Monitoring Recordkeeping Practices 7.2

The operational, development, and environmental monitoring program record keeping practices implemented at the Site are described in the Design and Operations Report dated March 2020.

# 8.0 | Complaint Response Procedure

The Site posts a telephone number for Site complaints at the entrance and staff are trained to receive complaints.

A record of the complaint will be created detailing the following information:

- The name and address of the complainant;
- The date and time of the complaint;
- The nature of the complaint;
- Activity occurring on-Site at the time of the complaint;
- The wind speed and wind direction at the time of the compliant; and
- Site response (e.g. action taken by Waste Connections and outcome).

If the complaint requires a written follow-up, staff should within ten (10) working days, respond in writing to the complainant indicating the course of action taken and the outcome. Most follow-ups will be completed by phone or in person and documented as such.

A summary of the complaints and actions taken will be reported at Ridge Landfill Liaison Committee meetings and reported in the Annual Site Development, Operations and Monitoring Report.

A sample complaint response form is provided as **Appendix C**.

### **Training Practices** 9.0

Staff are trained on the following procedures with respect to potential fugitive dust and odour emissions at the Site:

- The proper handling of wastes and management procedures for use and operation of equipment;
- Identifying on-Site activities that have the potential to generate dust;
- Investigation procedures for odours and odour management practices;
- Identifying how staff will monitor weather conditions and adjust Site operations as required;
- The specific written procedures for the control of nuisance conditions;
- Proper inspection, receiving, and recording procedures and the activities to be undertaken during and after a load rejection;
- The terms, conditions and operating requirements of the Site's current ECAs, as amended; and
- Waste management legislation including EPA, O.Reg. 347, and O.Reg. 232/98 regulations and MECP guidelines.

Waste Connections will keep the training plan and maintain records of staff training at the Site.

# 10.0 Air Monitoring Program

Waste Connections is committed to completing an air monitoring program, and upon receipt of the Site's amended ECA, Waste Connections will submit a monitoring plan to the MECP for approval.

The air monitoring plan will be consistent with the program completed at the Ridge Landfill in 2014 and will include twenty-four (24) hour samples of TSP, PM<sub>10</sub>, and VOC/NMOC over a period of six (6) months according to the National Air Pollution Surveillance Program (NAPS) schedule wherever possible.

The sampling will be conducted in general accordance with the MECP Operations Manual for Air Quality Monitoring in Ontario, dated May 2019.

# 11.0 Continuous Improvement

The Site continues to look at ways to enhance its environmental performance. This BMPP is to be considered a living document, and it will be reviewed on a regular basis and revised as new control measures are put in place or as warranted by other changes in Site conditions.

At a minimum, this BMPP will be reviewed, and updated as needed, annually.

# Appendix A Sample Fugitive Dust Inspection Form

# Sample Fugitive Dust Inspection Form

## Area Inspected

| Area Inspected                   | Inspected (Yes/No) |
|----------------------------------|--------------------|
| Off-Site Haul Route              |                    |
| Paved Access Road                |                    |
| Unpaved Landfill Perimeter Roads |                    |
| Unpaved Landfill Haul Roads      |                    |
| Storage Pile 1                   |                    |
| Storage Pile 2                   |                    |

### **Findings**

Area Inspected:

| Inspection Criteria   | Observations | Follow-up Action | Responsibility | Status |
|---|--------------|------------------|----------------|--------|
| Is visible dust observed at the area inspected?   |              |                  |                |        |
| Is the area well maintained (i.e. good housekeeping, area cleaned up?)                        |              |                  |                |        |
| Are proper control measures used (e.g. vacuum sweeper, water truck, vegetative seeding etc.)? |              |                  |                |        |
| Are vehicles moving below speed limit (if applicable)?  |              |                  |                |        |
| Are appropriate haul sizes maintained on haul vehicles (if applicable)?                       |              |                  |                |        |
| Are the haul vehicles regularly cleaned before leaving the site (if applicable)?              |              |                  |                |        |
| Are storage pile heights maintained below the level of windbreak (if applicable)?             |              |                  |                |        |
| Are low drop heights maintained for material handling activity (if applicable)?               |              |                  |                |        |

| Management Review |       |  |  |  |
|-------------------|-------|--|--|--|
| Name:             | Date: |  |  |  |
| Signature:        |       |  |  |  |

# Appendix B

Sample Odour Site Inspection Form

# **Sample Odour Inspection Form**

| Date:  |
|--|
| Time:  |
| Inspection Completed by:   |
| Weather Conditions (e.g. from local Environment and Climate Change Canada Station) |
| General Description:   |
| Wind speed and direction:  |
|  |
| On-site verification of wind direction:  |
| On-site verification of wind direction: Temperature:                               |
|  |

### **Site Perimeter**

| Perimeter<br>Location | Odour<br>Detected<br>(Y/N) | Intensity <sup>(1)</sup> | Description of Odour |
|-----------------------|----------------------------|--------------------------|----------------------|
|                       |                            |                          |                      |
|                       |                            |                          |                      |
|                       |                            |                          |                      |
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(1) Odour Intensities: Very fain, faint, distinct, strong, very strong, or extreme

Findings:

Immediate Actions Taken: Follow-up Actions Required:

### **Exposed Waste (Active Working Face)**

| Tν | pe | of | waste | being | app | lied |  |
|----|----|----|-------|-------|-----|------|--|
|----|----|----|-------|-------|-----|------|--|

Are odours detected at the working face:

If yes, is there potential for off-property migration of odour:

Odour Intensity:

| Intensity   | Description of Odour |
|-------------|----------------------|
| Very faint  |                      |
| Faint       |                      |
| Distinct    |                      |
| Strong      |                      |
| Very strong |                      |
| Extreme     |                      |

| _ |    |   |    |      |   |
|---|----|---|----|------|---|
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Immediate Actions Taken:

Follow-up Actions Required:

### **Landfill Gas Collection System**

| Are odours detected at any wells or LF | -G collection areas: |
|--|----------------------|
|--|----------------------|

If yes, location:

If yes, is there potential for off-property migration of odour:

Odour Intensity:

| Intensity   | Description of Odour |
|-------------|----------------------|
| Very faint  |                      |
| Faint       |                      |
| Distinct    |                      |
| Strong      |                      |
| Very strong |                      |
| Extreme     |                      |

Findings:

Immediate Actions Taken:

Follow-up Actions Required:

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|---|---|---|----|---|---|
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| Are there any visible crack and fissure |                                  |
|---|----------------------------------|
|   | es along the landfill footprint? |
| f yes, location:                        |                                  |
| Findings:                               |                                  |
|   |                                  |
|   |                                  |
|   |                                  |
| mmediate Actions Taken:                 |                                  |
| Follow-up Actions Required:             |                                  |
| ·                                       |                                  |
|   |                                  |
| Are odours detected originating from    | the landfill footprints:         |
| f yes, location:                        |                                  |
| f yes, is there potential for off-prope | erty migration of odour:         |
| Odour Intensity:                        |                                  |
| Intensity                               | Description of Odour             |
| Very faint                              |                                  |
| Faint                                   |                                  |
| Distinct                                |                                  |
| Strong                                  |                                  |
| Very strong                             |                                  |
|   |                                  |

### **Landfill Leachate Collection System**

Are odours detected at any wells, riser pipes, or cleanout areas:

If yes, location:

If yes, is there potential for off-property migration of odour:

Odour Intensity:

| Intensity   | Description of Odour |
|-------------|----------------------|
| Very faint  |                      |
| Faint       |                      |
| Distinct    |                      |
| Strong      |                      |
| Very strong |                      |
| Extreme     |                      |

Findings:

Immediate Actions Taken:

Follow-up Actions Required:

| Management Review |       |
|-------------------|-------|
| Name:             | Date: |
| Signature:        |       |

# Appendix C Sample Odour Complaint Response Form

## **Sample Odour Complaint Response Form**

| Date:  | Time:  |
|--|--|
| Complaint Information  |  |
| Name:  |  |
| Address:   |  |
| Contact Number:  |  |
| Callback completed (if required):  |  |
| Date of Odour:   | Time of Odour:   |
| Complaint Details (describe where odou how strong the odour was, duration, and characterize the odour):            |  |
| Odour intensity rating from 0 to 6:  |  |
| 0 – no odour<br>1 – very faint<br>2 – faint<br>3 – distinct  | <ul><li>4 – strong</li><li>5 – very strong</li><li>6 – extremely strong.</li></ul> |
| Weather Conditions (i.e. from local Change Station)  | Environment and Climate  |
| General Description: Wind speed and direction: On-site verification of wind direction: Temperature: Precipitation: |  |
| Details of Investigation   |  |
| Was the site receiving waste: Other activities occurring on-Site:  |  |

Location of working face:

| Can a specific odour source be identified (i.e. garbage, leachate, etc)? If yes, describe:  Were there any upset or abnormal operating conditions at the time of the complaint? If yes, describe:  Were any maintenance activities being conducted:  Were any monitoring activities being conducted: |
|--|
| Other relevant information:  |
| Investigation Findings:  |
| Required Actions:  |
|  |
|  |
| Actions Completed on (Date):   |
| MECP Reporting Details   |
| Name of MECP Officer Receiving Complaint:  |
| Date Reported:   |

| Form Completed By |       |
|-------------------|-------|
| Name:             | Date: |
|                   |       |
| Signature:        |       |
| Management Review |       |
| Name:             | Date: |
|                   |       |
| Signature:        |       |