

Good Practices Guide for Odour Management

<INSERT PRESENTATION DATE>



CASA and Odour

Areas of Focus

The air will have no adverse odour, taste or visual impact and have no measurable short- or long-term adverse effects on people, animals or the environment.

- Health
- Complaints
- Assessment
- Prevention & Mitigation
- Enforcement & Regulation
- Education, Communication & Awareness
- Continuous Improvement

Task Groups and Reports

Five groups reporting to Odour Management Team

- Report to the Clean Air Strategic Alliance Odour Management Team Enforcement/Role of Regulation Task Group – RWDI AIR Inc.
- Review of Odour Assessment Tools and Practices for Alberta – Millennium EMS Solutions Ltd., and Environmental Odour Consulting
- Review of Odour Prevention and Mitigation Tools for Alberta – Pinchin Ltd.
- Odour Complaints in Your Area: A Guide for Developing an Odour Complaint Process – Developed by the Task Group
- Odour and Health Backgrounder (with Symptom Tracking Tool) – Developed by the Task Group

Principles for the guide

Although focused on Alberta, the guide is considered applicable to anyone involved in odour management

- Assess and recommend national and international best practices applicable in the Alberta context
- Capture the products and recommendations of the individual task groups
- Offer practical tools and approaches
- Be clear, concise and user friendly
- Provide keys/roadmaps to guide tool selection and use



UNDERSTANDING ODOUR

Summary of elements that are essential to the understanding and characterization of odours and odour events



Symptom and Odour Tracking Tool

SYMPTOM DETAILS

Date

Time

Location (*e.g., home, work*)

Intensity (0-5)

Did the symptoms come and go during the day?

SYMPTOM DESCRIPTION AND OTHER RELEVANT INFORMATION

(e.g., I smelled manure and rotten eggs in the same day, had a headache followed by trouble sleeping)

ODOUR DETAILS

Date

Time

Location (*e.g., home, work*)

Intensity (0-5)

Did the odour come and go during the day?

ODOUR DESCRIPTION AND OTHER RELEVANT INFORMATION



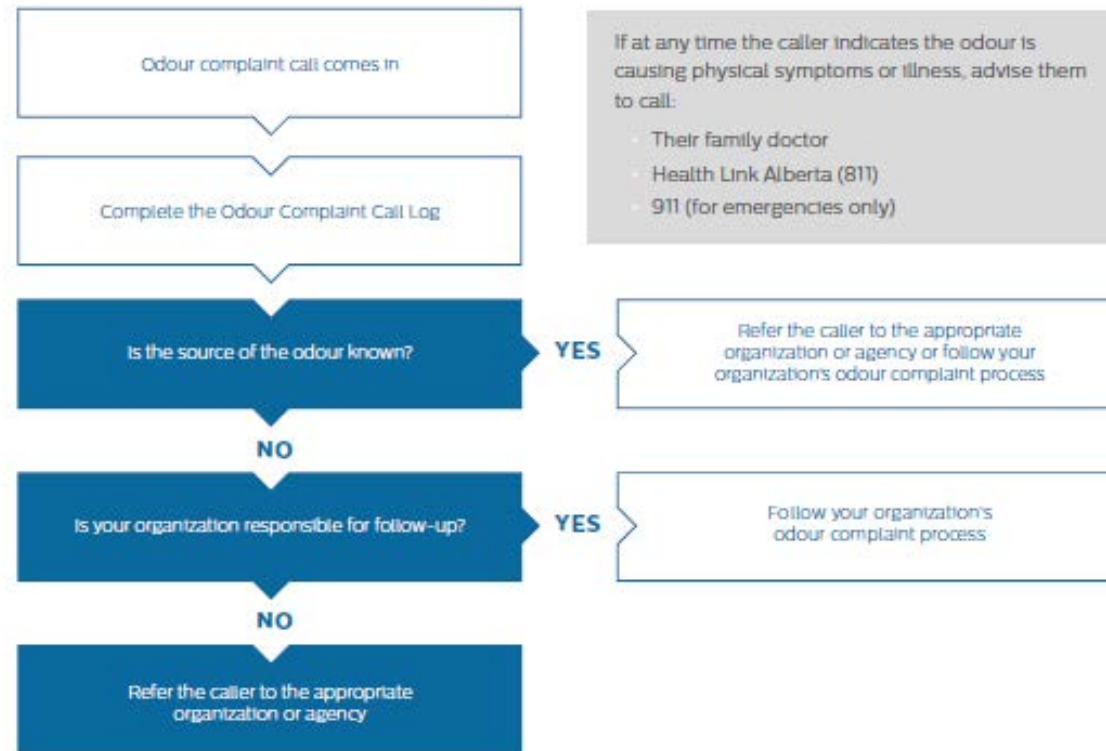
ODOUR COMPLAINTS

Guidance and advice about odour complaint management, from taking the complaint to preparing for an investigation



Odour Complaint Referral Process

Odour Complaint Decision Tree



CHEMICAL/ PETROLEUM ODOURS	MANURE/SEWER ODOURS	ROTTEN ODOURS	ODOUR
Possible sources: - Manufacturing - Refineries - Oil & gas operations	Possible sources: - Agriculture	Possible sources: - Sour oil and gas operations - Pulp mill	Possible sources:
Contact: Local Organization AER/AEP	Contact: Local Organization Municipality NRCB	Contact: Local Organization AER/AEP	Contact:

Customize the boxes as appropriate for your local industries and activities.

- Alberta Energy Regulator (AER)
1-800-222-6514
- Alberta Environment and Parks (AEP)
1-800-222-6514
- Natural Resources Conservation Board (NRCB)
1-866-383-6722
- 311 Calgary or 311 Edmonton



ODOUR ASSESSMENT

Outline of the different odour assessment tools and approaches that can be used and when and how to use them



Tool Use Guide

PURPOSE OF ODOUR ASSESSMENT	SUGGESTED STEPS
To verify and investigate odour complaints	<ol style="list-style-type: none"> 1. Non-analytical assessment 2. Ambient sampling and measurement 3. Source sampling and measurement
To comply with conditions outlined in operating/industrial permits	<ol style="list-style-type: none"> 1. Source sampling and measurement 2. Ambient sampling and measurement
To determine compliance with odour legislation	<ol style="list-style-type: none"> 1. Source sampling and measurement 2. Ambient sampling and measurement
To assess long-term odour exposure levels in an area	<ol style="list-style-type: none"> 1. Non-analytical assessment 2. Ambient sampling and measurement
To rank potential odour sources for mitigation purposes	<ol style="list-style-type: none"> 1. Source sampling and measurement (OU or individual compounds)
To determine background odour concentrations before building a new facility	<ol style="list-style-type: none"> 1. Ambient sampling and measurement
To determine the off-site odour impact from existing operations	<ol style="list-style-type: none"> 1. Non-analytical assessment 2. Ambient sampling and measurement
To determine the expected changes in off-site odours resulting from new facilities, expansions of existing facilities or other operational changes	<ol style="list-style-type: none"> 1. Source sampling and measurement 2. Ambient sampling and measurement 3. Dispersion modelling

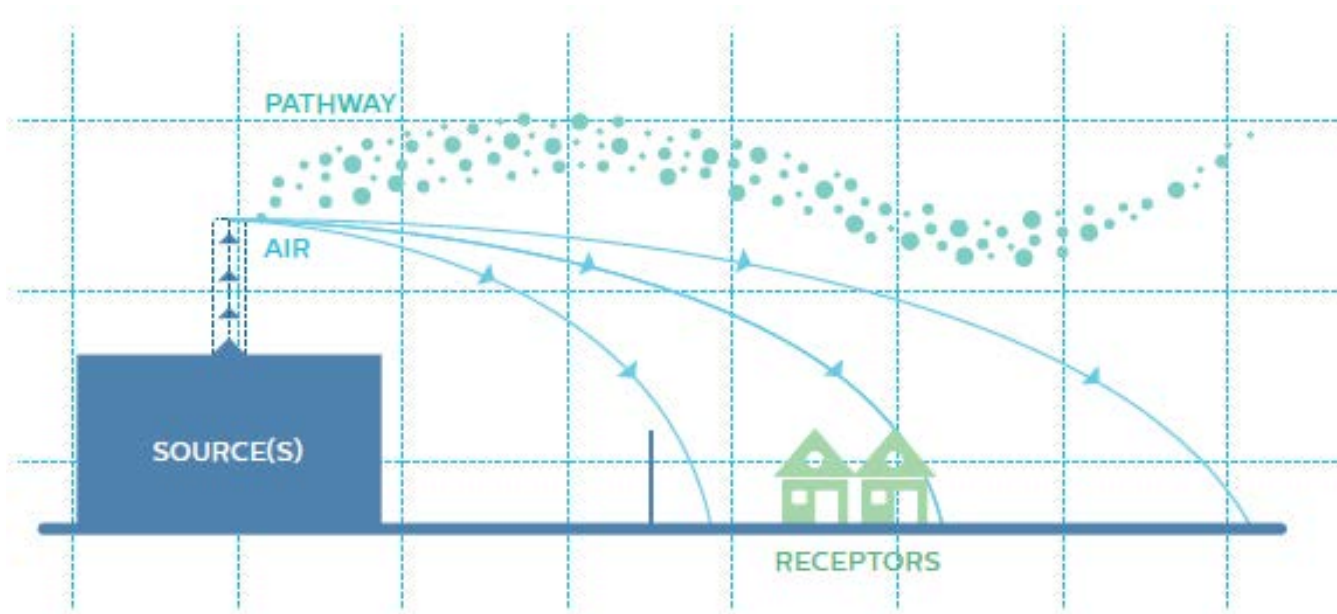


ODOUR PREVENTION

Outlines actions and tools to prevent or mitigate odorant releases and/or nuisance odour events



Source-Pathway-Receptor Model and Tools



BENEFITS

Prevention techniques can drastically reduce or eliminate the potential for odour

Operational/maintenance modifications can be simple and easy to implement

CONSIDERATIONS

Material substitutions can require expensive and time consuming trials

Process changes may affect the quality of products



ODOUR MANAGEMENT

**Regulatory options identified
as potential approaches for
managing odours**



Regulatory Approaches

General considerations

- Guide provides general considerations for any potential regulatory-based odour management framework
- Identifies strengths, weaknesses and considerations of 8 ambient-based and 2 emission-based regulatory systems



FUTURE PLANS

Continuous improvement and education, awareness and communication strategies





Questions?

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