


Responding to incidents involving landfill gas leaching

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GUIDELINE
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Version Control

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1 Introduction

AFAC Guidelines are a preferred or advisable course of action. Member agencies are expected to be aware of Guidelines and to have considered how best they apply to relevant circumstances faced by the agency. Guidelines are addressed to AFAC member agencies, and agency personnel should refer to their agency operating procedures for further information.

This Guideline is to assist and support agencies responding to and treating incidents involving gases that have migrated from landfill sites. It reflects a consensus on best practice for dealing with such incidents as at the date of publication.

The Guideline set out in this paper has been formulated from a joint Country Fire Authority/Metropolitan Fire and Emergency Services Board paper based on the learnings from the Brookland Greens landfill gas incident in Victoria in 2008. Full details of the analysis on which this Guideline is based are outlined in the AFAC Discussion Paper *Responding to incidents involving landfill gas leaching* (May 2011).

2 Scope

This Guideline applies only where continuous monitoring of landfill gas concentrations has been instituted following recognition by local Environmental Protection Agencies (EPAs) and government that a risk to public health and safety from landfill gas exists. Fire authorities will respond to other calls for assistance relating to suspected gas leak or accumulation in accordance with existing agency Standard Operating Procedures or Guidelines.

3 Guideline

1. Long-term management of incidents of gas migrating from landfill sites is the responsibility of the local EPA and local or State/Territory government as provided by legislation.
2. Fire authorities that are notified of a landfill gas incident where ongoing monitoring is taking place should work with the EPA and local authorities to identify
 - i. a % lower flammability limit (lfl) at which a fire service response will be provided
 - ii. a % lfl at which this response should be under emergency conditions (lights and sirens).
3. A *starting point* for determining the concentration of landfill gas that calls for a fire service response is 20% lfl and a *starting point* for response under emergency conditions is 50% lfl, but in each individual case a risk assessment must be carried out which takes into account the rate at which gas concentrations change, the response time, and risk associated with specific locations. The outcome of the risk assessment may be setting a lower or a higher benchmark for emergency response.
4. Reasonable action to take in relation to emergency calls involving landfill gas monitors detecting in excess of the predetermined % lfl is to ventilate until steady readings below the

level that has been determined to warrant a fire service response are achieved. **Note:** Workplace Health and Safety legislation may make specific provision for flammable gas concentrations in confined spaces (as defined in the legislation) and must be complied with by emergency responders.

4 Supporting documents

Responding to incidents involving landfill gas leaching, AFAC discussion paper, May 2011

Action Guideline Levels for Methane produced from Landfill, CFA/MFB, 2010