



# Surface Emission Survey

## Standard Operating Procedure

WASTE  
REDUCTION  
& DISPOSAL  
DIVISION

### Landfill Gas Management

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*Before leaving the office, check to make sure you have everything you need to complete the survey:*

1. Take appropriate site map.
2. Ensure gas analysis instrument (Porta-Fid) is fully charged and operating correctly (check battery condition, visual inspection, last calibration date, verify small gas cylinders are fully charged).
3. Review maps from the previous surveys to accomplish complete coverage of landfill surfaces.
4. Bring appropriate personal protective equipment (sun screen, etc.).

### *Upon Arrival:*

1. Upon arrival at site, energize gas analyzer, set the range buttons to the most sensitive setting, ensure signal button is depressed to receive audible alarm and zero gas analyzer by exposing instrument to fresh air and reset meter to zero.
2. Commence survey by walking at normal pace and holding the instrument probe within 2 – 4 inches of ground surface. Follow the necessary survey path according to the following guidelines:
  - Miramar Landfills use 100-foot grid systems; AVOID STEEP SLOPES
  - South Chollas, Arizona Street, Paradise Hills conduct surveys which result in a complete coverage of the whole site including slopes within a calendar year.
3. Walk at normal pace, stopping every 20-feet to allow probe to perform a spot check.

**\*Note -** In the event of an **alarm**, check instrument to determine the cause of the alarm. If the instrument loses pressure from the gas bottle, an alarm will sound, check instrument gas pressure. Normal pressure is 30 psi. If alarm is due to methane concentration above 500ppm, select the next highest scale to determine the methane concentration. Conduct a sweep of the immediate area to determine extent of methane emissions above 500 ppm.

4. Mark the survey on the route map indicating the path taken, location, and concentration of methane gas at or above 500ppm. Place stakes or paint marks on the ground so that the area can be located later for follow up tests and/or surface repairs. Make a legend on the map to indicate the meaning of symbols used, write your name, date, and the instrument used.

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### **Benefit of Compliance to Instruction:**

- Detect any landfill methane emissions at or above 500ppm and take corrective measures to protect the public health and safety;
- Comply with Regulatory Agency rules (APCD);
- Provides accurate, complete, and consistent survey data.

### **Consequence of Non-Compliance to Instruction:**

- Undetected emissions may cause threat to public health and safety;
- Violation from Regulatory Agency;
- Inaccurate and inconsistent survey results.

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*Environmental Management System (EMS) –ISO 14001*

*PROCESS MAP #: GM-2.0*

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