

# VEOLIA PROPRETE

## The landfill site at Villeneuve Loubet selects the RQ Box solution for continuous odor monitoring



« The proposed solution automatically provides simple results, understandable by everyone, from high-tech tools... this has been one of our selection criteria when choosing this solution deemed as the most ergonomic and meeting the expectations of our users! »

Site operator

### The site

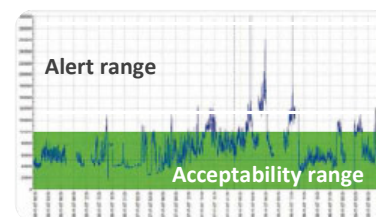
- Non-hazardous waste storage center, located at Villeneuve Loubet, France
- 270.000 tons of waste processed each year
- Located in a rugged area, subject to high temperature differences
- Spray system to neutralize odors
- ISO 14001 certified



Dynamic « odor » map

### Challenges

- To understand and anticipate emissive events
- To continuously monitor the emission levels of odors and target gases
- To verify compliance with the regulatory thresholds
- To monitor the dispersion of odors in the vicinity of the site
- To reduce the odor impact on neighboring residential areas



Monitoring of odor flow rate with alert threshold

### Solution

Two complementary approaches:

- **Olfactometry campaign** to rank odor sources and « calibrate » the electronic noses
- **RQ Box Solution for odor and gaseous pollutants monitoring**, including:
  - four RQ Box electronic noses, providing odor concentration results in  $ou_E \cdot m^{-3}$  (EN 13725 standard)
    - three fixed noses, located at the emission source, to alert in real time
    - one mobile nose, that can be moved according to operations and site growth
  - a weather station located on site
  - a wireless communication system
  - the RQNet software for results acquisition and display
  - 4D atmospheric dispersion modeling software

### Results

- **Highly accurate dynamic map of odor dispersion in the vicinity of the site**
  - ⇒ Taking into account the odor concentrations at the emission source, local meteorological parameters and the particularly complex topography of the monitored area
- **24/7 monitoring of odor flow rate ( $ou_E \cdot h^{-1}$ ) and target gases:  $NH_3$ ,  $H_2S$ , total VOC (ppm)**
  - ⇒ Operator alerted in real time if threshold is exceeded
  - ⇒ Relevant detectors associated with the waste management sector
- **Conclusive results, which contributed to Veolia Environment's decision to equip their Aquapôle wastewater treatment plant in the Isère region (France).**