

SUEZ Lyonnaise des Eaux

Adapting compost production methods and reducing the odor impact of the site with the RQ Box solution



« Previously we simultaneously started the fermentation of three compost piles. Thanks to the RQ Box measurement, I noticed that the fermentation of 2 piles instead of 3 caused a significant decrease in the concentration of sulfur compounds and removed inconvenience to the neighborhood. Today, we spread out the fermentations over the day. »

Bernard Vinet, Plant manager

The site

- Covered composting facility located at Lur Bizia, France
- 15 000 tons of sewage sludge treated per year
- 5000 tons of compost produced per year
- Compost meets the specifications of French standard NFU 44-095
- 2 air treatment lines at 35 000 m³/h
- Air treatment by scrubber and biofilter



Covered composting facility

Challenges

- To limit the odor impact of the site on the neighborhood:
 - adaptation of compost production methods
 - optimization of the air treatment process
- To be alerted in case of malfunction of the deodorization system

Solution

- RQ Box solution for odor and gaseous pollutants monitoring, including:
 - a gas sampler-dryer at the exit of the deodorization facility
 - a RQ Box electronic nose for measuring :
 - odors (ou_E.m⁻³ according to the EN 13725 standard)
 - process gases: NH₃, mercaptans, VOC
 - a wireless communication system
 - RQ Net software for results acquisition and display
- Daily record of site operations



Exit of the deodorization facility

« Before installation of this tool, it was difficult to optimize the treatment facility [...]. Now these parameters are adjusted according to the RQ Box indication adapted to the needs of Suez Environment. »

Mélanie Commet, RQ Box User

Results

- **Identification of the manufacturing steps causing odor nuisances**
 - ⇒ Continuous monitoring of odor and gaseous pollutant concentrations
- **Quantification of process gases: NH₃, mercaptans, VOC**
 - ⇒ Detectors dedicated to the sector of activity
- **Efficiency check at each stage of the wet gas treatment**