

### **NEBRA** Digestion Roundtable

### **CMI Environment**

Your partner for environmental excellence



Cockerill Maintenance & Ingénierie



## Welcome to the CMI Group **Agenda**



- CMI Group: Short Introduction
- CMI Tailor-made solutions for Odor Control
- CMI Stripping solution : Recov'Ammonia

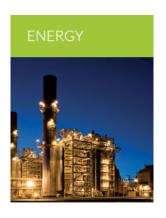


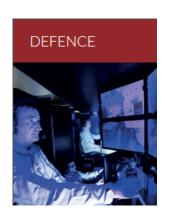
### CMI Group: Short introduction

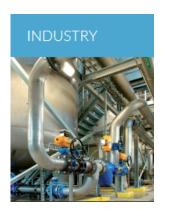
## **CMI** Group: Short Introduction **A specialized Group**

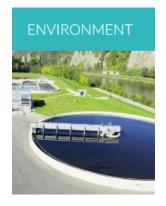


Waste treatment Energie solaire **Défense** Air Training **Energies** Chaudières Eau **Environnement** Lignes de galvanisation HRSGs Boilers **Sidérurgie** Aeronautics Simulators Solar energy Maintenance Operational efficiency Stations d'épuration Services aux projets **Equipment** Know-how Galvanizing lines **Energies** Laminoirs HRSGs Spécialistes **Environment** Systèmes d'armes Durable Métaux Industrial furnaces Weapon systems Biomasse **Services to industries** Projects services Water Savoir-faire Fours industriels **Equipment** Simulateurs Efficacité opérationnelle **Metals** Biomass Rolling mills **Specialists Services aux industries Air** Formations Aéronautique Defense Sustainable Maintenance Steelmaking













## CMI Tailor-made solutions for Odor Control

## Tailor-made solutions for air pollution control CMI Odor Control Strenght



- > >110 people dedicated to the odor, located in 3 entities
  - Including 6 people in Lisle with more than 40 years of history in industrial air treatment
- R&D (Laboratory, Dynamic olfactometer, pilot tests)
- > 1000 references Worldwide
- Using Eco friendly Thermoplastic material
- Sourcing from North America
- ➤ Specialized in 3 main technologies → BEST SOLUTION!!!

### Tailor-made solutions for air pollution control Waste Management / SEMECS / Varennes (QC) - Canada







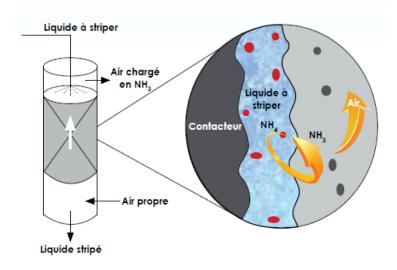
## CMI Stripping solution: Recov'Ammonia

## CMI Stripping solution: Recov'Ammonia Stripping Principle



Release targeted polutants from the liquid towards the gas





#### **Operating Parameters**

Temperature regulation

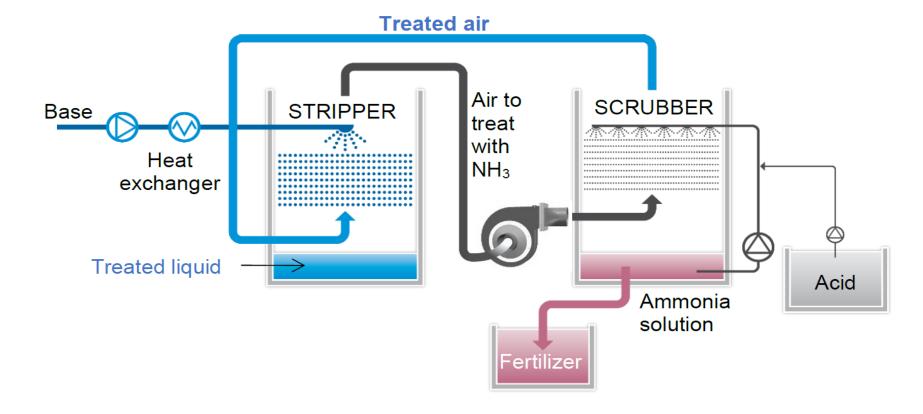
pH regulation

air/liquid ratio definition

Exchange model

## CMI Stripping solution: Recov'Ammonia Recov'Ammonia





### CMI Stripping solution: Recov'Ammonia Recov'Ammonia – Digestion plant – SEMECS - Canada



**Process**: Organic waste

**Liquid Flow**: 100 gpm

 $[NH_4+]:$  3.3 g/l

#### **Stripping parameters:**

Confidential

Efficiency: 90% **⇒** [NH<sub>4</sub>+] 200 mg/l



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# Thank you

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