Odor Control
Newterra has been controlling odours for over 20 years. Our technologies for controlling odours have been used for:
- Municipal waste water plants
- Composting activities challenging odours
- Mushroom farms
- Lagoon water treatment from chicken rendering and other food plants
- Sewage Pump Stations
- Remedial systems
Sources of Odour in a Sewage System

Potential Sources of Odour in an MBR system:

- Manholes along the sewer collection system if any
- Pumping stations on the sewage collection system if any
- Equalization tanks or wet pits without aeration
- Screen systems before any aeration steps
What Creates the Odour

- Sewage is allowed to go ‘septic’ or
- Sulphate reducing bacteria thrive
- Hydrogen sulphate is produced (H2S)
- This is the rotten egg smell
- Mercaptans and amines may also form
Sources of Odour in a Sewage System

Where we don’t typically create odour issues with MBR:

- Equalization tanks with aeration
- Aeration tanks (high dissolved oxygen, no formation of H2S)
- Anoxic tanks (low dissolved oxygen, but still aerobic so no formation of H2S)
- Discharge tank, pond, ditch etc
- Sludge holding tank as long as the tank is aerated
Solutions to Potential Odour Areas

- Aerate if possible to prevent septic conditions
- Ventilate and treat air from areas where odours might be formed
Examples of Systems in Close to Receptors with no odour control

White House Condominium and Hotel Brockville

Barbados Resort

Beaverdams Golf Course Water Reuse - Calgary
Examples of Systems in Close to Receptors with odour control

Redpath
Vent Stack Passive Scrubber
Technologies

Our technologies and equipment:
- Media adsorption (carbon, IPH or other selective media)
- Biological treatment of soil or ponds (10 projects)
- Air scrubbers (media) either deep bed or shallow tray (Hundreds)
- Manhole media cannisters (50 supplied, including City of Ottawa)
- Passive Vent Scrubbers
Examples of newterra Odor Control Equipment Built for other customers

Quebec Sewage Pumping Station

Saskatchewan Sewage Pumping Station

Papermill H2S and Mercaptan Removal
Examples of newterra Odor Control Equipment

Proctor & Gamble
Odour Abatement System

Extrata Nickel
H2S and Mercaptan Removal
Specialized Media – long lasting

**GC IPH – Impregnated Activated Carbon**

**Specifications**

**Carbon substrate**
- Particle type: pelletized
- Particle diameter: 4.0 mm
- Particle length: 0.2 mm
- Mean particle diameter: 4.7 mm (min)
- O2 Activity: 80 % (min)
- Iodine no.: 1000 mg/g (min)
- Surface area: 1000 m²/g (min)
- Hardness: 0.5% (min)

**Standard packaging**
- 55 lb bags or 1100 lb bulk bags

**Impregnated carbon**
- Bulk density: 0.55 g/cc
- Moisture: 15 % (max)
- Maximum head loss at 60 fpm superficial velocity through a dense packed bed, in w/u/f. bed depth: 1.8 (max)
- Hydrogen sulphide breakthrough capacity, g H₂S/100 carbon: 0.14 (min)

**GC IPH** is a bituminous coal-based activated carbon that is specially impregnated for the desulphurization of gases and the removal of all acidic contaminants such as hydrogen sulphide (H₂S), hydrogen chloride (HCl), and mercaptans (thiols).

**Safety message**

Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels. Confined space/law oxygen procedures should be put in place before any entry is made. Such procedures should comply with all applicable local, state and federal guidelines.
Examples of Odour Control Systems

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