

ODOR REMOVAL

new way how to solve that problem

odors occur at following applications:

- municipal sewage plant
- waste sludge treatment
- compost works
- dairy
- food industry
- pharmaceutical industry

systems for odor removal:

- scrubbers
- biofilters
- zeolite filters

differences in systems for odor removal:

- scrubbers: easy regulation and dosing of chemistry only on demand, can react also on high odor concentrations
- biofilters: working good at low and constant odor pollution, acidification and channeling can occur when too much sulfides in the air are present
- zeolite filters: economical at small waste air flows, renewing of zeolite material every one or two years

scrubber systems for odor removal:

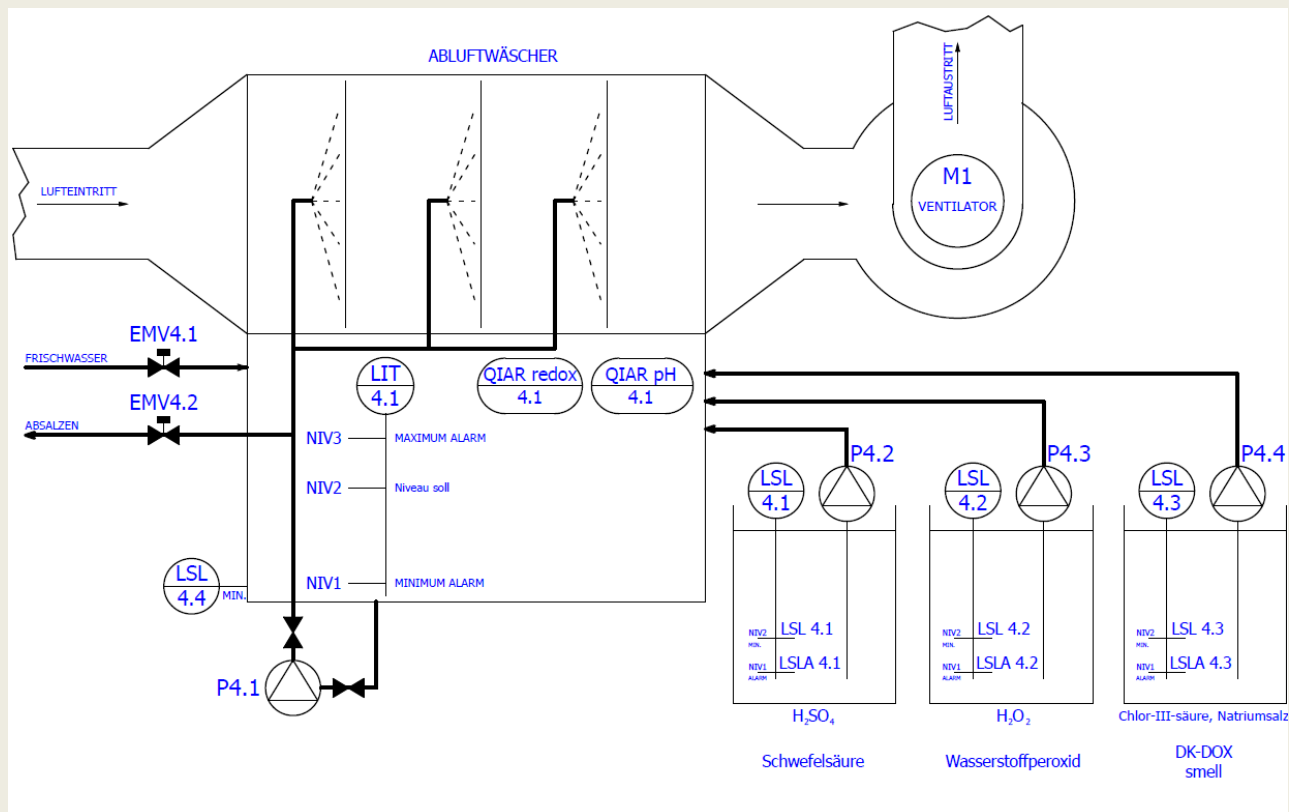
- two tower scrubber:
 - first tower used for ammonia neutralisation with sulfuric acid
 - second tower used for oxidation of hydrogen sulfide and mercaptans with peroxide in alkaline medium → loss of peroxide
- one tower scrubber:
 - process at low pH and ammonia neutralisation with sulfuric acid
 - dosing of chlorine (III) acid (HClO_2) and peroxide for oxidation of hydrogen sulfide and mercaptans
- semi cross flow scrubber:
 - can be used as two tower or one tower scrubber

benefits of one scrubber system:

- lower investment costs → just one scrubber tower, less ducts
- lower operating costs with only one circulation pump and less pressure drop in system → lower operating costs for fan
- less required space for installation
- no loss of peroxide because the process is effected at low pH

demonstration of one scrubber system:

Application: semi cross scrubber as one tower system



images:









**Thank you for your
attention!**