QUESTIONNAIRE – POND TREATMENT PLANT

OLOID – Agitate, Circulate, Aerate

In order to quickly clarify whether this energy-saving technology is suitable for your application, please fill out the questionnaire as far as possible and to send us by e-mail.

Questionnaire

1. General Information

1.1. Project type

- New construction ❍
- Modification ❍
- Expansion ❍
- Process optimisation ❍
- Another type ❍ Short description:.....
.....

1.2. Sewage source

- Only commercial / industry ❍
- Commercial / industry and domestic sewage of the company ❍
- Commercial / industrial with domestic sewage from residential areas outside the enterprise ❍
- Type of sewage: .....
.....

1.3. Waste water discharge

- Introduction to public sewerage (indirect discharge) ❍
- Introduction directly into receiving water (direct discharge) ❍
- Other type of discharge ❍ Short description: …….....
.....

1.4. Specific information on the company

- Shift operation: .....h/d; ..... d/w
- Seasonal operation: .....w/a
- Operation on demand: .....
- Other operation mode: .....
- Connected sewage effluent from: ..... Residents; ..... Employees
- Connected residents outside the company: ..... Residents

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2. Operational sewage treatment

- Rake system ❍
- Micro Strainer ❍
- Sanding ❍
- Buffer tank ❍
- Neutralization stage ❍
- Solid material separation in settling tank ❍
- Other pre-treatment: ❍ Short description: ……
……

3. Pond geometry and volume

(If possible enclose sketch)

- Number of ponds with below dimension: ..... Stk.
- Width of pond: ..... m
- Length of pond: ..... m
- Diameter of pond: ……..... m
- Water height: min: ..... m
  max: ..... m
  median ..... m
- Pond volume: min: ..... m^3
  max: ..... m^3
  median:..... m^3
- Inlet: ..... l/s
- Information on the pond wall model, short description:

  .....

  .....

3. Waste water quantity

3.1. Daily value: min: .....m^3/d
max: .....m^3/d
median: .....m^3/d based on ..... d/a

3.2. Weekly value: min: .....m^3/w
max: .....m^3/w
median: .....m^3/d based on ..... d/a

3.3. Hourly value: min: .....m^3/h
max: .....m^3/h
median: .....m^3/d Based on mean time of daily Waste water: ..... hourly average

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4. Sewage structure (24 h mixed samples)

We assume that in many cases not all of the in the table below listed physical-chemical parameters are available. Please enter all that are available.

Waste Water Parameter	Unit	Pond feeding	Pond drainage (required)
		Daily Means	Daily Means
Temperature	°C		
PH-value			
Totally Suspended Substances TSS	mgTSS/l		
Organic part of TSS	$mgTSS_{org}/l$		
BOD_5 (Homogenised sample)	mg O_2/l		
COD_{total}	mg CSB/l		
$COD_{dissolved,\ inert\ (non\text{-}degradable)}$	mg CSB/l		
$CSB_{dissolved,\ readily\ degradable}$	mg CSB/l		
Total Kjeldahl Nitrogen TKN	mg/l		
Dissolved Kjeldahl Nitrogen	mg/l		
Ammonium-Nitrogen (NH_4-N)	mg/l		
Nitrate-Nitrogen (NO_3-N)	mg/l		
Nitrite-Nitrogen (NO_2-N)	mg/l		
Phosphate (PO_4-P)	mg/l		
Total Phosphorus	mg/l		
Dissolved Phosphorus	mg/l		
Alkalinity	mol/l		

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5. Provisional operation and operating parameters

5.1. Operation of the ponds or reactors:

- Continuous feed with waste water ❍
- Discontinuous feed with waste water ❍
- Operation of ponds using Sequence Batch Reactor (SBR) procedures
  Operation of the reactors as:
  Denitrification basin ❍
  Anaerobic bio-P elimination basin ❍
  Other basin types ❍ Short description: ……..……..….....
  .....
- Operation of ponds with secondary clarification, without return sludge conveying ❍
- Operation of ponds with secondary clarification, with return sludge conveying ❍

5.2 Temperature (daily average): ..... °C

5.3 PH-value (daily average): ..... pH

5.4 Activated sludge concentration pond / reactor: ..... mgTSS/l

5.5 Active sludge concentration, organic fraction: ..... $mgTSS_{org}/l$

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6. Aeration system

No aeration system is installed ❍
An aeration system is installed ❍
Type of aeration: Compressed air aeration ❍
Surface aeration ❍
Injector aeration ❍
Special aeration ❍
Aerator manufacturer: .....
Aerator make: .....
Aerator units: ..... Stk./Teich
Installed power per aerator unit kW/Unit .....
Absorbed power per aerator unit kW/Unit .....
O_2-absorption capacity: kgO_2/h and aeration unit ..... (Standard condition)
Fitting locations of aerator units: short description: .....
.....
.....
.....
.....
(If possible, please attach a sketch)

Company: .....
Name: .....
Place and date: .....
Signature: .....

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