



Foam & Bulking Sludge

Session 9

FREE Zoom—Training Session

Introduction to indicator organisms and causes of excessive foam, filaments and bulking sludge.

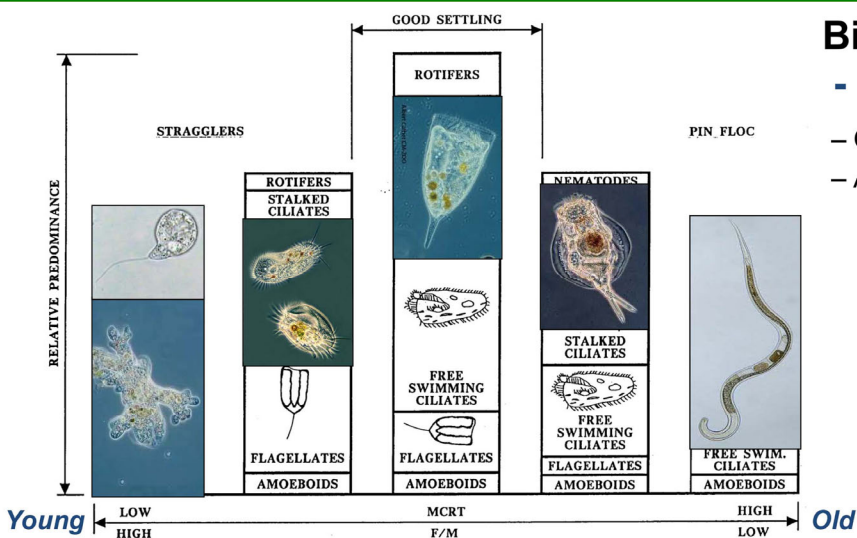
Includes: Problem identification followed by operator or engineering solutions to foam/filament problems.

Much information can be gained by observing the secondary clarifier as to what type of solids are floating on the water surface. Participants will see examples of various types of visible solids near or at the surface of the secondary clarifier. Microscopic examination of indicator organisms will also be discussed. Examples of modification to reactors that minimize foaming and bulking sludge will be presented.

Answer these Example Questions:

1. What are the indicator organisms often present with foam and bulking sludge problems?
2. How do ashing, clumping or billowing solids appear different in the secondary clarifier & what does that tell us?
3. Can operational or engineering modifications be used to control foam and filaments?
4. Which chemicals are effective in controlling bulking sludge and how should they be applied?

Example Slides: Indicator Organisms and Foam Observations



Billowy, White Foam - Plant Startup – Low MCRT

- Generally indicates young, slow settling sludge
- Also Found
After hydraulic washout
Result of over wasting



- Indicates old, rapid settling sludge
- Settling may be slow
 - Hindered settling
- Often filamentous
 - Nocardia
 - M. parvicella

