



**TECHNICAL BULLETIN:
POLLUTION PREVENTION USING BIOFERMENTATION™:
RAPID RECOVERY OF BIOLOGICAL TREATMENT SYSTEMS & PLANT SHUTDOWNS**

1. POLLUTION PREVENTION PROGRAMS

Environmental pollution prevention is becoming a more important part of every day business. ABS introduces a new line of on-site Biofermentors™ and programs to assist your company with effluent permit compliance. The microbiology of a wastewater treatment system is living, consisting of a consortium of bacteria responsible for BOD removal. ABS has developed a process called Biomass Blue-printing™ which can be used to isolate the key micro-organisms from the biomass of a wastewater treatment plant, which are responsible for BOD removal and floc structure. These microbes can be kept on file and then grown in an on-site Biofermentor™ during plant upsets, so that the biology quickly recovers. Alternatively some customers prefer to use a “favorite” off-the-shelf bug product – No problem. The Biofermentors can grow these also!! Using this technology it is now possible to recover from shock loads, or toxic shocks, in days not weeks providing a valuable tool for companies to add to their Pollution Prevention Programs.

2. BIOFERMENTORS™:

ABS has developed a line of on-site Biofermentors which can be kept on standby at your plant to cut down on mobilization and set-up time during an upset, which can lead to losses in production or violation of NPDES permits. The Biofermentors™ can be used to handle shock loads during shutdowns and for plant start-ups in order to populate the biomass in the wastewater treatment system quickly, rather than relying on natural recovery.

MODEL 250



MODEL 500



MODEL 750



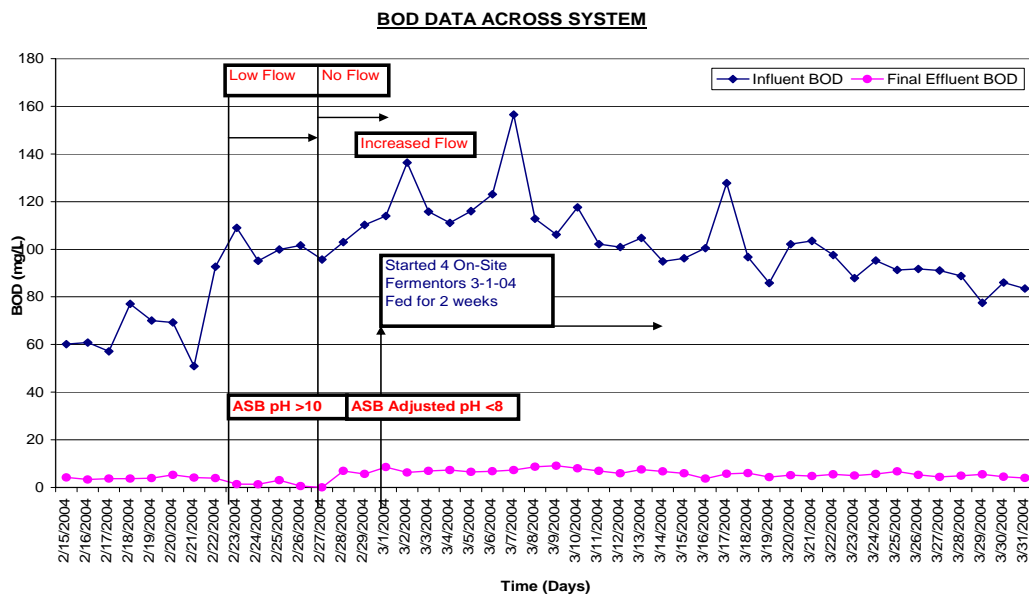
MODEL	250	500	750
Prod. Capacity (Ton/d)	1	2.5	6
Waste Flow (MGD)	<2	2-10	10+
Waste Load (lbs BOD/d)	<20,000	20-45,000	45,000+



These on-site Biofermentors™ are a “Plug and Play Biotechnology™”. Each Biofermentor™ is fully automated only requiring the operator to press the transfer button and add 2.5 lb bags of Bionutrient.

3. RAPID RECOVERY – SO RAPID THEY NEVER NOTICED IT!!

The influent and effluent BOD data below is from a paper mill with a 100-acre aerated lagoon, which had suffered a pH shock during a mill shutdown resulting in a pH of >10.5 throughout 50% of the system killing all life. Within 2 days, ABS re-established viable counts of bacteria of >10,000 cfu/mL saving the company from any NPDES permit problems during mill start-up.



4. BIOFERMENTATION PROGRAMS:

Call ABS @ 904-213-7994 to license your Rapid Recovery Program today.