The contact oxidation material [The Swim-bed Bioringe] with innovative effects has made full scale inroads into China markets by using marketing method based on needs oriented.

Toichiro Koyama, the President of NET

The [Swim-bed Biofronge](BF) having innovative effects has been introduced on the June 2013, Business i. ENECO explaining an outline of its business and future business plan. Then many customers who read the article want to know about innovative effects. So this article will explain about the outline of BF's two type of typical treatment flow: BF-AO (anaerobic and aerobic) flow and BF-SQ (simple and quick) flow. Also this article reports about needs oriented marketing with high QCP (Quality, Cost, and Performance) and save energy effect has been accepting in China.

# The strong points of BF system

#### 1. BF-AO flow

BF technology has been developed based on understanding and to get hold of the dispensation of Nature, then apply it and solve the problem happening on the site. Therefore this technology has wide range of possibilities and can be fitted to various wastewater treatments. The theme of technology development for BF is to return to Nature by to integrate the dispensation of Nature to BF system.

The table below shows functions of each section of BF-AO flow.

#### Functions of each section of BF-AO flow

Basic	Save energy. High QCP. Stable treatment even the quantity and quality of	
	influent fluctuates widely. Ten years guarantee.	
BF-A	Increase HRT→Decrease HRT (a few days→a few hours). SS solubilization.	
(Anaerobic)	Increase biodegradability of organic acid. One tank operation (exist both	
	anaerobic and aerobic condition). No problem of high concentration of DO in	
	influent. 100% nitrogen removal. Phosphorus removal.	
BF-O	100% nitrification under condition of BOD exists. Generate aerobic granule	BOD
(Aerobic)	sludge (peeled sludge become floatation sludge). Operate high concentration	5 to 10mg/L
	MLSS (8,000 to 20,000mg/L). Low convert ratio from BOD to SS by long	1A to 1B
	food chain (BOD→SS 5%)。	
Sedimentation	High surface loading can be achieved because of granule sludge. Low return	
Tank	sludge ratio is possible (return sludge ratio 35%).	
Bio-F	Completely remove bio- degradable substance in a few minute.	
Ozone rector	Remove refractory organics. Sterilization. Discoloring. Deodorization.	BOD 1.6mg/L
		Ascent of ayu
RO, et cetera	Remove very small quantity of organic (Estrogen, Nonylphenol)	Possibility of
	Remove salt	Newest water

### 2. BF-SQ (Simple and Quick)

As emergency measure, BF-SQ system was installed in Sendai city sewage plant which damaged badly by the East Japan Earthquake. This plant had a capacity of 300,000m³/day and covered seventy percent of area of Sendai-city. BF-SQ system has achieved the target removal ratio of contamination, so that the high performance of **BF-SQ** has been proved.

- Object: Public sewage plant in Sendai-city, capacity was 300,000m³/day covered seventy percent of Sendai Area.
- Water quality: BOD (200→60m

- g/L. Removal ratio 70%)
- BOD volume lord:
  17kg-BOD/m³.day.for BF.
  (13kg-BOD/m³.day for tank)
- Situation: A large quantity of tissues mixed in influent because primary sedimentation tank capacity was too small.
- Achievement: The project has been completed as short as eight months. Pollution of the sea has been prevented. The plant has been operation more than two years with no problem occurred.

# Inroad into China market

Our company exhibited BF technology [Environment Technology Exhibition] in Beijing sponsored by ChinaWaterNet. cosponsored Tsinghua University, and Japan-China Economic Association on 28th and 29th June as a only Japanese company who exhibited products. Generally Chinese customers think that Japanese products are excellent in quality but too expensive to use, so that Japanese product cannot be used widely in China. But in this exhibition, many visitors who saw BF exhibited in our booth understood the high performance of BF and four companies have decided to use BF system. One of case is that a local government located the outskirts of Beijing wants their plant to exchange from existing **MBR** (Membrane Bioreactor) which already broken and

difficult to repair to BF, so they already submitted an application to do so. Furthermore there are concrete inquiries from wide range wastewater. And now the plan to make a model plant is progressing. As you know, many things are occurring present China: 1. China's people are suffering by very bad environment such as high concentration of PM2.5. 2. Many riots are occurring in rural area because of big gap between rich and poor. 3. Many high-level official are run away to foreign countries because their corruption. 4. Weak control of the central government over environment regulation. But now, highly motivated companies aware of problem emerging. Right after the Senkaku Islands dispute, some certain people showed their antipathy against

Japanese. But this time of my visit China, I didn't see any such antipathy and I was given up seat three times in bus and train. I think good opportunity for BF business with needs oriented marketing has been coming.

End