



## Michelina's Inc. Selects ADI System for Difficult Wastewater Treatment Application

Michelina's Inc is a major producer of frozen entrees. Its main production facility is located in Jackson, Ohio, which is in the southeast corner of the state. With rapid growth, existing wastewater treatment operations at the site became more difficult, and City surcharges and sludge disposal costs began to soar. Therefore, Michelina's went looking for treatment systems and technologies that could offer simplicity of operation, minimal waste sludge generation, and lower overall O&M costs.

Michelina's search led them to ADI Systems Inc and its low-rate anaerobic BVF® reactor technology. A treatment system built around the BVF technology would meet all of Michelina's treatment needs while offering simplicity and affordable capital and O&M costs. Thus, ADI was awarded a complete design/build contract in March 2005.

The design wastewater characteristics and effluent limits are listed below:

<u>Parameter</u>	<u>Raw Wastewater</u>	<u>Effluent Limits</u>
Flow	750,000 gpd	750,000 gpd
COD	3,200 mg/l	--
BOD	2,000 mg/l	≤ 350 mg/l (monthly avg)
TSS	1,700 mg/l	≤ 350 mg/l
pH (range)	4 to 10	6.5 to 8.5
FOG	160 mg/l	--





The wastewater pretreatment plant consists of a 250,000 gal influent equalization tank, a 5.25 MG above-ground anaerobic ADI-BVF® reactor, a 360,000 gal once-through aeration tank, a control building, laboratory, and standby power generation unit. The entire operation is monitored by one operator working four hours per day. Since the system produces very little noise and no foul odors, it poses no problems being located near downtown and residential areas (refer to above photos).

The system was commissioned in November 2005 and started treating the full design load in January 2006. The existing dissolved-air flotation (DAF) units, which were expensive and difficult to run, were permanently shut down during start-up of the new system.

Since January, COD and TSS loadings have consistently been at or above design, and the system is consistently meeting all the City's discharge limits.

The management of Michelina's Inc. has expressed complete satisfaction with the performance and operation of the treatment system.

**ADI Systems Inc.**  
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