



## Beef Processing

A slaughterhouse had expended its production and could no longer meet its discharge permit for land application. Integrated Engineers was retained to retrofit their pretreatment system to reduce the BOD and overall nitrogen loading to the existing ponds.

Floccin-E was the product of choice. The results are shown below and will allow the facility to actually bypass their ponds, if so desired. This will allow them to retrofit the pond(s), remain in 100% operation, and meet their discharge permit. During the design and operation of the new ponds, the reduction in aeration horsepower is estimated at 150 hp, saving \$600/day in electricity.



Analyte	Untreated	Treated	% Reduction
BOD	2,600	310	88%
TSS	2,000	150	92.5%
Ammonia	36	22	38%
Nitrogen (TKN)	320	110	65.6%
Nitrate	ND	ND	N/A
Nitrite	ND	ND	N/A

Based on a flow of 350,000 gpd, this represents a reduction in BOD of 6,685 lbs/day, ammonia at 41 lbs/day, and nitrogen at 613 lbs/day. Assuming that all of the ammonia will convert to nitrogen, the total removed is 654 lbs/day.