



EXCEL CORPORATION, SCHUYLER, NE

Excel is a meat processing plant that handles approximately 4,400 head of cattle per day. The wastewater from the plant goes through a screen, a dissolved air flotation tank and an anaerobic lagoon. From the lagoon, the wastewater is pumped to four NDN ICEAS[®] basins. There is a dedicated centrifugal blower for each ICEAS basin. Each basin also uses a dissolved oxygen meter, pH meter and water depth meter. Equipment at the plant includes 11,200 SANITAIRE[®] membrane fine bubble diffusers, 25' decanters, DO & pH meters, a control panel with PanelMate 4000 and a computer SCADA system

The plant treats industrial wastewater from the meat processing plant and has been in operation since 1997.

The plant is designed according to the following parameters:

Influent Conditions

	<u>Plant Influent</u>
Average Dry Flow	2.66 mgd
Peak Dry Weather Flow	2.66 mgd
Peak Wet Weather Flow	2.66 mgd
BOD ₅	406 mg/l
TSS	744 mg/l
Ammonia Nitrogen	201 mg/l

Effluent Conditions

BOD ₅	45 mg/l
TSS	70 mg/l
Ammonia Nitrogen	1 mg/l

ICEAS[®] Process Design Criteria

F:M	0.0625 lb. BOD/lb. MLSS/day
MLSS @ BWL	5298 mg/l
Normal Cycle Time	8 hrs.
Storm Cycle Time	8 hrs.
Number of ICEAS Basins	4
Basin Length	149.86 ft.
Basin Width	50 ft.
Top Water Level	18 ft.

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