Quality Chef Foods

CASE SUMMARY 16

QUALITY CHEF FOODS
A DIVISION OF H.J. HEINZ CO., LP

Cedar Rapids, Iowa
Linn County
Intern: Patrick Brown
Major: Civil-Environmental Engineering
School: Iowa State University

The Company

Quality Chef Foods produces frozen soups, sauces and entrees for sale primarily to restaurants and food service companies. Quality Chef employs about 330 people at its production facility and produces over 80 million pounds of product a year.

Project Background

Quality Chef Foods has established an environmental management system and is working to expand environmental initiatives. The intern project evaluated wastewater and solid waste issues and found solutions to reduce waste and disposal costs.

Incentives to Change

Quality Chef would like to reduce high costs associated with wastewater disposal and reduce the amount of wasted raw materials. A reduction in the organic loading of the wastewater is both environmentally and economically beneficial.

Results

The opportunities for potential annual savings are:

1. **Employee training program** - $20,000

Employee practices at Quality Chef contribute to the organic loading in the wastewater. A presentation was developed to educate employees regarding how their actions affect wastewater and solid waste issues at the company. Revised cleanup procedures and waste reduction are emphasized in the program. It is expected that one ton of food scraps per day will be diverted from the sewer system. The payback period on the investment is only one month.

2. **Replacement of floor drain screens** - $24,000

The current screens covering floor drains in the factory have large diameter holes that are not sufficient to prevent solids from entering the sewer system. Many of the current screens are also not effectively secured to the floor. New, small diameter screens are more effective in reducing solids, such as food scraps, from entering the sewer. This leads to a reduction in the organic loading of the wastewater, which lowers the cost of wastewater disposal for Quality Chef. The new screens can be made in-house for a low cost, producing a payback period of only three weeks.

3. **Reschedule grease interceptor service visits** - $15,000

The wastewater study conducted by the intern found that the grease interceptors at the factory were serviced more often than required. Installing new drain screens and implementing the new cleanup program will further reduce the service needs of the grease interceptors. It is recommended that the schedule be amended to two service calls per month following the adoption of the above recommendations. There are no costs associated with this change, resulting in immediate payback.

4. **Installation of pretreatment system** - $196,000

Quality Chef has grown rapidly in recent years, and now generates a considerable amount of wastewater each day. The high volume of water and high sewer disposal fees make the installation of a wastewater treatment system economically attractive. The intern has proposed a system that will substantially reduce solids and the Biochemical Oxygen Demand (BOD) of the wastewater, along with the associated disposal costs.

5. In addition to the savings recommended by the intern, Quality Chef Foods saved approximately $9,500 by using the services of the internship program to conduct a wastewater study.

Total opportunities for Quality Chef include $255,000 potential annual savings, $9,500 one-time savings and one ton of solids per day diverted from the sewer system.

Project Summary Table

P2 Option	Annual Cost Savings	Payback Period	Other	Status
Change grease interceptor service schedule	$15,000	0	Additional savings possible with implementation of further waste reduction	Recommended
Install new floor drain screens	Potential $24,000	3 weeks		In progress
Employee training	Potential $20,000+	1 month	1 ton/day of food scraps diverted from sewer	In progress
Screening unit with DAF tank pretreatment	$196,000	1.5 years		Recommended
Intern conducted wastewater study			Save approximately $9,500	Implemented