MEP National Network™

NEBRASKA SUCCESS STORY

PLANT ASSESSMENT OF WATER, WASTEWATER OPERATIONAL COSTS, AND ENVIRONMENTAL FOOTPRINT

ABOUT PURINA ANIMAL NUTRITION. Purina Animal Nutrition, LLC., located in Fremont, Nebraska, is an industrial facility specializing in the production of mineral premix and tubs of nutrient-supplemented molasses for animal feed markets. The plant uses approximately 200,000 pounds of molasses daily in a process that is only utilized in a handful of other locations worldwide. A subsidiary of the wider parent company Land O' Lakes, a leader in animal feed production, this particular site has approximately 45 employees.

THE CHALLENGE. As part of its continuous improvement initiatives aimed at achieving greater sustainability and lower operating costs, Purina Animal Nutrition was looking for extra assistance to help expedite the task of reducing its wastewater demand on the city of Fremont.

MEP CENTER'S ROLE. In partnership with Nebraska MEP, part of the MEP National Network, and the College of Engineering at the University of Nebraska-Lincoln, an engineering student attended the site location over the course of a summer as part of the P3–Partners in Pollution Prevention–internship program. The student completed an assessment of wastewater generation and its loading to municipal treatment throughout the plant process and made recommendations on ways to reduce waste water generation while maintaining Purina Animal Nutrition quality and environmental metrics. The company saved over sixty thousand dollars by reducing waste water contaminants, decreasing fresh water usage, lowering electrical usage and reducing the amount of salt required by the plant.

"The service and professionalism of the P3 group was outstanding! They were able to collect and analyze data in a fraction of the time it would have taken my group to mobilize and execute the way they did. Well worth the time investment and it was good giving the young professionals real life experience out in the field for them to test their knowledge. Our thanks to Nebraska MEP and the College of Engineering at the University of Nebraska-Lincoln for offering this program."

-Lance Staggenborg, Plant Manager

RESULTS

- Reduced waste water contaminates by 141,000 lb, saving $26,500
- Decreased fresh water usage by 8.8 MM gal, saving $27,100
- Lowered electrical usage by 180,000 kWh, saving $2,600
- Reduced the amount of salt used by 42,000 lb, saving $6,600

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