

Actual Benefit Return

Predictive Maintenance Technologies

Cost Avoidance Analysis Sheet

Prepared for: Ethanol Processing Plant

Date: December 8, 2003

Period: Doucment Equipment Saves from June 2002-Present

Machine Fault	# of Occurrences in Route	Est. Cost for Suggested Minor Repair	Est. Cost of Complete (Major) Failure	Production Loss	Period Total - Minor Repair	Period Total - Major Repair	Cost Avoidance
Vibration							
Bag House Fan	1	\$ 452	\$ 2,252	\$ -	\$ 452	\$ 2,252	\$ 1,800
Bliss Mill	2	\$ 3,008	\$ 18,000	\$ -	\$ 6,016	\$ 36,000	\$ 29,984
Cooling Tower Pump	2	\$ 7,500	\$ 40,000	\$ -	\$ 15,000	\$ 80,000	\$ 65,000
Dryer Fan #1	1	\$ 2,760	\$ 3,560	\$ -	\$ 2,760	\$ 3,560	\$ 800
Dryer Fan #3	1	\$ 2,760	\$ 3,560	\$ -	\$ 2,760	\$ 3,560	\$ 800
CO2 Blower	1	\$ 6,500	\$ 23,600	\$ -	\$ 6,500	\$ 23,600	\$ 17,100
P605 Pump	1	\$ 1,800	\$ 4,800	\$ -	\$ 1,800	\$ 4,800	\$ 3,000
Cooling Tower Motor 75HP	1	\$ 600	\$ 2,000	\$ -	\$ 600	\$ 2,000	\$ 1,400
940A Cooling Tower Pump Motor	1	\$ 3,000	\$ 10,000	\$ -	\$ 3,000	\$ 10,000	\$ 7,000
RCM Program Investment		\$ 21,500					
Total	11				\$ 38,888	\$ 165,772	\$ 126,884
Potential R.O.I (Potential Cost Avoidance vs. Program Investment)							\$ 5.90

Disclaimer: The listed prices are based on estimates. The repair cost do not include production loss, environmental hazard fines, or damages that occur to other equipment as a direct result of the primary failure.

The RCM Program Investment was \$21,500.

The RCM Program successfully prevented 11 issues throughout the plant.

Identifying the issues and making the repairs gives an estimated minor repair total of \$38,888.

Run-to-failure or major equipment damage repair cost is estimated at \$165,772.

The Potential Cost Avoidance is \$126,884 or a \$5.90 return for each dollar invested with the RCM Program.

The calculations do not include lost production.