Wells' Dairy, Inc.

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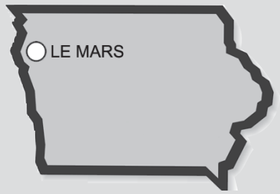

Wells' Dairy, Inc., best known for its Blue Bunny ice cream brand, is the nation's largest family owned and managed dairy processor. The company was founded in 1913 and now sells more than 500 different Blue Bunny products in the United States and in two foreign countries. Headquartered in Le Mars, Iowa, the success of Wells' has produced more ice cream in this town than in any other single location and has earned Le Mars the title "Ice Cream Capital of the World."

Project Background

Wells' Blue Bunny has long meant to increase the efficiency of its compressed air systems. Appreciative of past experience with P2 Services, Wells' eagerly approved this project and has since given much support to the project's efforts to reduce energy consumption. This project, of course, was undertaken with the understanding that P2 opportunities beyond compressed air could manifest themselves, and indeed the resulting recommendations are not solely limited to compressed air.

Incentives to Change

The company is ever intent on minimizing operating costs. Applicable savings reduce the price paid by the consumer, and this boosts sales. Beyond the fiscal incentive to reduce energy consumption, Wells' understands the need to minimize adverse impact on the environment, and the company has recently taken great strides to reduce the generation of pollution. This project has found that Wells' can simultaneously cut costs and reduce pollution by investing in the following areas:

- compressed air blowoff fittings
- compressed air system filters
- leaks in the compressed air system
- pressure in the tires used on the class 7 cargo trucks
- insulation in the walls between the boiler room and freezer

Results

Common to many companies in the manufacturing sector, Wells' uses compressed air blowoff fittings to blow streams of air onto production lines. While this application of compressed air is important to the manufacturing process, it consumes significantly more air than any other application. After considering options, it was found that installing Exair engineered blowoffs in place of existing blowoff fittings will use less air and still generate the same effect. This can save 508,199 kWh of electricity per year.

Wells' can form a regular maintenance program to service all of the nearly 350 air filters in the compressed air system at its North Ice Cream Plant. This will ensure that the filters are serviced at proper intervals. Currently, the heavy-duty filters are changed out more often than is necessary, and the light-duty filters are not changed out often enough.

With a compressed air system the size of Wells', leaks are inevitable. The system at the North Ice Cream Plant proves no exception to this, and was found to have 38 major leaks. At little cost, Wells' can seal these and effectually save 138,700 kWh worth of compressed air per year. In addition to using current methods for leak repair, Wells' should consider using Loctite brand thread adhesive to seal the joints in compressed air piping. Unlike nylon tape, this sealant will not degrade when subjected to the vibrations present in Wells' compressed air lines.

To help alleviate the burden of high transportation costs, Wells' can form a regular maintenance schedule to check all 14 of its class 7 cargo trucks for tire pressure. This will help ensure that the tires maintain optimal pressure, so each tire's rolling resistance can be minimized enough to save 228 gallons of gasoline per year. Ensuring proper inflation will also help to optimize the ground-to-tire contact patch, thus reducing wear and increasing tire life enough to save 3.4 tires per year.

The west and north walls of the North Ice Cream Plant's boiler room border a large storage freezer. This results in a stark difference between temperatures on each side of both walls. Currently, neither wall provides sufficient insulation to keep boiler room heat from seeping into the freezer. Adding more insulation would reduce this heat transfer and take some load off the refrigeration system. No specific remedy is yet recommended, but it is suggested that Wells' look into this further.

Project	Annual Cost Savings	Environmental Results	Status
INSTALL ENGINEERED BLOWOFF FITTINGS	$18,803	508,199 kWh	Implementing
REPLACE AIR FILTERS AT PROPER INTERVALS	$4,673	Solid waste reduction of 170 filters	Implementing
SEAL MAJOR LEAKS IN COMPRESSED AIR SYSTEM	$5,132	138,700 kWh	Recommended
CHECK PRESSURE IN TRUCK TIRES AT REGULAR INTERVALS	$1,189	228 gallons of gasoline and solid waste reduction of 3.4 tires	Recommended
ADD INSULATION TO WALLS WHICH SEPARATE BOILER ROOM FROM FREEZER	More research needed	More research needed	More research needed

Air Pollutants Diverted in Tons

	Total for all sectors
SO2	1.4
CO	0.1
NOX	0.7
VOC	0.0
LEAD	0.0
PM	0.0

Green House Gases Diverted in Tons (CO2 Equivalent)

	Total for all sectors
CO2	266.0
CH4	10.0
N2O	2.9
CFCS	3.2