

August 2011

Frito-Lay – Fleet Initiatives

Challenge

The Frito-Lay Beloit facility produces Lay's and Ruffles potato chips, Cheetos, Fritos, Doritos and Tostitos.

As part of its 5-year sustainability plan, Frito-Lay Beloit has set forth environmental objectives, including a reduction in fuel use by the transportation fleet. This is in line with Frito-Lay North America's participation in the EPA SmartWay program. The company sought to reduce engine idling, caused by drivers leaving their tractors running during long load/unload periods and during overnight resting periods in cold months. The company also recognized the need to improve its overall fuel efficiency with the increasing cost of fuel and to reduce the carbon footprint of the Over The Road (OTR) Fleet.

Strategy

The company addressed the issue using a two-part strategy: 1) installing equipment to facilitate a reduction in idling time and informing drivers about how to use the equipment effectively, and 2) developing behavior modification strategies to encourage drivers to drive more efficiently.

Leaving the engine running during the winter on tractor-trailers had become almost standard practice among drivers. However, this represents a significant waste of fuel and added unnecessary wear to the engine. During the winter of 2009, Frito-Lay Transportation monitored idling times on each truck and found that about 44% of the time an engine was running, it was idling. The company installed [Webasto](#) Cab Heaters, which served to both heat the engine block and warm the cab. This effort, coupled with the use of an anti-gelling fuel additive, allowed the drivers to shut off their tractors overnight and start the Webasto unit two hours before hitting the road in the morning. The units, when turned on, use about a tenth of a gallon of fuel per hour, compared with one gallon per hour when the engine is idling. In addition, to improve fuel efficiency, Frito-Lay Beloit made other equipment-related upgrades, such as adding aerodynamic fuel tank skirting and converting tires to low rolling resistance tires.

In order to further increase fuel efficiency, Frito-Lay addressed driver behavior, through both awareness raising and the use of effective incentives. The company sent six employees to attend Top Gun Expert Training. These six reported back to their peers about how much they liked the training, and conducted in-cab training with the other drivers on proper shifting, acceleration, breaking, proper tire inflation, speed and idle control. One driver who took the training was able to increase his fuel efficiency from 8 mpg to 10 mpg using the driving techniques.

In addition to the training and equipment upgrades, incentives were used to change behavior. Drivers were grouped into "Performance Teams." The performance of each team was posted and continually updated in real time to provide immediate feedback at the completion of each trip. The three best-performing driving teams were recognized for their fuel use efficiency and were compensated with rewards such as cook-out celebrations and gift cards. There is also additional individual recognition for the driver with the most improved mpg performance of a 90-day period.



Results

All the fleet tractors have been equipped with the Webasto heaters and, as a result, idling time has been reduced by 60% (from 44% idling time in winter of 2009 to 17.5% during the same period in 2011). This is equivalent to fuel savings of over 3800 gallons compared to the same period a year earlier.

Fuel efficiency has improved year over year since 2009. The goal for 2011 is to improve efficiency by 2% and year-to-date results show that the Beloit fleet is performing at a 1.3% improvement, with only 4 months under the new program. If the tactics and technology deliver the 2% improvement goal the fleet will reduce fuel consumption by about 21,000 gallons.

A.J. Parker, Transportation Fleet Manager, affirms that one of the keys to the success so far has been the spreading of information through word of mouth within the driver teams. As drivers see and hear about other teams outperforming them, they inquire about how to do the same, replicating the best practices internally. Effective incentivizing has also played a role in spreading positive behavioral change, since the friendly competition among teams encourages drivers to continually improve their fuel efficiency.

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