

North Slope Businesses Benefit From New Practice



EMI-Global President Richard LeFrancois in front of an A-40 after a Temp-A-Start install.

Photos courtesy of Richard LeFrancois.

Idle-reduction technology makes sense, saves dollars.

BY HEATHER A. RESZ

Some ideas just make sense. And some ideas add up to dollars and cents.

Such is the case for idle-reduction technologies in use by more and more companies operating heavy equipment across Prudhoe Bay, according to Terry Howard, director of equipment operations for Arctic Slope Regional Corp. He said collectively idle-reduction technology has the potential to save millions in fuel and maintenance costs for heavy equipment operating in Prudhoe Bay.

"When you put the pencil to it and do round numbers, they go up so fast," Howard said.

Here's a rough look at some of those numbers.

Assume there are about 2,000 pieces of equipment in Prudhoe Bay, each consuming about four gallons of fuel an hour, Howard said.

That means a savings of 8,000 gallons of fuel for every hour that equipment isn't idling, he said. Over the course of 10 hours, that's a savings of 80,000 gallons.

Howard pushed his pencil a little further and estimated that each gallon of diesel fuel delivered and pumped into fleet units costs about \$7.

That means the entire fleet of 2,000 vehicles could save as much as \$560,000 during a single 10-hour shift, solely by reducing idle times.

"It's definitely a gold mine,"

Howard said of idle-reduction technologies like Temp-A-Start, which ASRC uses. "Collectively, across the North Slope, there are millions of dollars of saving in this."

These 14-pound "gold mines" can be installed after purchase, but increasingly manufacturers like Detroit Diesel, Cummins and Mack Trucks are licensing the patented Temp-A-Start technology for factory installation on their products.

Either way, Howard said idle-reduction systems are a good investment. Purchased and installed, he said the units cost about \$3,700; though they save more than that in a single season through reduced fuel and maintenance costs.

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**—Richard LeFrancois
President
EMI Global**

“You almost can’t put them on fast enough,” Howard said. “After the first season, everything goes right to the bottom line.”

He said all of the heavy equipment ASRC adds to its fleet will come with factory-installed idle-reduction systems.

NEW APPLICATIONS FOR EXISTING TECHNOLOGY

Idle-reduction technology isn’t new. The Temp-A-Start system was invented in the 1980s, but hadn’t been applied to construction equipment until ASRC had the first North Slope wheel loader outfitted with an idle-reduction system in 2005.

“It took a real leap of faith to shut that machine off in Deadhorse and wait for Temp-A-Start to fire it back up,” said EMI Global President Richard LeFrancois, who introduced Temp-A-Start technology to Alaska equipment managers.

Working as a technology consultant to fleet operations for Alyeska Pipeline Service Co. for the past five years, LeFrancois said he’s learned a lot about the unique challenges of operating construction equipment on Alaska’s North Slope.

It was a perfect storm of high fuel prices, continued pressure from the federal government to mandate cleaner engines and LeFrancois’s unique experience in Alaska’s marketplace that led to the technology’s application here.

LeFrancois’s pitch for savings through reduced fuel and maintenance costs was enough to pique the interest of folks at ASRC Energy Services, who hired Alaska Truck and Gear in Fairbanks to install the Temp-A-Start on that first Volvo wheel loader.

“That first install on a Volvo L150 wheel loader was a bit of a challenge, but the second install on a L120E went much smoother,” LeFrancois said.

He said ASRC took a gamble when it powered down the wheel loader in

Deadhorse in the middle of winter. “Historically, shutting equipment off was the kiss of death,” LeFrancois said.

AN OPTION TO IDLING

In its default mode, Temp-A-Start monitors engine temperature, and starts the engine when oil temperature drops to 56 degrees and shuts the engine off when oil temperature reaches 134 degrees. In zero-degree weather, Temp-A-Start typically will run the engine 2.2 hours during a 10-hour period for a 78 percent off time, according to information from the manufacturer.

But no one really knew if the system would still function as designed when the mercury plummeted to minus 30 or lower, LeFrancois said.

While Howard and other ASRC staff waited and tried not to worry, the smart box quietly monitored the loader’s oil temperature and battery charge. And when its oil temperature dropped to the pre-set level, the system powered up the loader and left it idling until the oil had warmed to the desired temperature, before powering the loader off again.

The test was a success, Howard said.

Using the idle-reduction system to cycle the loader on and off reduced the total off-duty idle time for the L150 from 14 hours to three hours, Howard said. And testing at Fort Greeley also showed the Volvo L120E was operating with similar reductions in idle times, he said.

Following this success, ASRC Energy Services installed Temp-A-Start on other construction equipment and heavy trucks it uses or provides to companies such as BP-Alaska, Conoco-Phillips, Alyeska Pipeline Service Co. and the Odem Corp.

Steve Rinehart, a spokesman for BP-Alaska, said the company has experimented with a couple of idle-reduction technology systems and plans to add the technology to hundreds of its vehicles.

“Our goal is to have this kind of technology in use on virtually all of our vehicles up there,” he said. “We see this as a good opportunity to reduce fuel use and improve air quality.”

OTHER NEW APPLICATIONS

ASRC is going so far as to hire a Fairbanks vendor to customize a consumer



Ted Hada, an employee of West-Mark, Ceres, Calif., installing a TAS system on a new Volvo A-40 Articulating Dump Truck for ASRC.

auto-start system to monitor engine oil temperatures and start its light- and medium-duty trucks automatically when the oil drops to the preset temperature.

Howard said ASRC aims to have the first of these modified systems installed on its light- and medium-duty truck fleet by the end of the year.

ASRC likes the idea of idle-reducing technology so much, it also is passed the idea along to its own clients, such as Alyeska Pipeline Services, he said.

As a technology adviser, LeFrancois said it’s his job to look at applications and try to come up with solutions like reducing idle time.

“It just works. That’s what most people say and that’s exactly what you want,” he said.

There are hundreds of thousands of idle-reduction systems in operation across North America, LeFrancois said.

For the most part the systems have been used by long-haul truck drivers seeking alternatives to leaving their rigs idling while they take their mandatory 10-hour break after every 11 hours at the wheel. In the Lower 48, the systems see more use maintaining the climate in the cabin while the driver rests.

“It’s a great piece of technology, LeFrancois said. “We just had the opportunity to plug it into a situation where the value is very evident.” □