

FOR IMMEDIATE RELEASE

June 21, 2004

## Washington Governor Gary Locke Honors Innovative Diesel Locomotive Engine Project

### Congressman Brian Baird Joins in Praise of This Innovative Technology

**BNSF**



**Southwest Clean Air Agency**

**VANCOUVER, Wash.** – The city of Vancouver, Wash. now leads the Western United States with innovative technology that reduces emissions from idling switchyard diesel locomotive engines. Three switchyard diesel locomotive engines in Vancouver now demonstrate how cutting-edge technology can improve a community and help the environment. This diesel emissions reduction initiative was achieved at a total cost of \$122,500, which includes the assistance of an \$85,000 grant from the U.S.

Environmental Protection Agency.

“I am pleased to be honoring this innovative diesel emissions reduction technology’s application in the Pacific Northwest,” said Washington Governor Gary Locke. These proven retrofit devices keep critical fluids warm and flowing, allowing the locomotive engines to be shut down when not performing work and then quickly restarted when needed. This program will dramatically reduce fuel consumption, noise, soot and toxic air pollution for the surrounding neighborhoods. “Burlington Northern and Santa Fe Railway Company’s implementation of this project confirms their reputation as being a good corporate citizen who seeks out and implements innovations which provide cleaner air and less noise pollution. The significant reductions in diesel fuel consumption provided by this project also promote climate change improvements that I and the Governors of California and Oregon have endorsed. I am especially pleased that this innovative technology has been designed by a Washington-based company, demonstrating once again how cutting-edge our Washington business community is and I hope that the application of this technology will spread to every switchyard in the

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United States,” said Governor Locke.

When switchyard locomotive engines are not in use, they typically idle to keep critical fluids circulating and equipment warm. Based on tests performed at the Chicago rail yard of The Burlington Northern and Santa Fe Railway Company (BNSF), this project will save thousands of gallons of diesel fuel and can potentially reduce switchyard diesel locomotive idling emissions by 90 percent. “This is an outstanding project that enhances the quality of life for southwest Washington citizens,” said Congressman Brain Baird. “I commend all of the parties who have been involved with this exciting project,” said Congressman Baird.

Each retrofitted locomotive utilizes a Diesel Driven Heating System (DDHS) from Kim Hotstart Manufacturing Company of Spokane, Wash. and a SmartStart system from ZTR Control Systems of Minneapolis. The DDHS allows an idling locomotive to be shut down by heating the locomotive engine coolant and oil, charging the batteries and powering the cab heaters. The SmartStart system automatically shuts down and starts up the locomotive engine to reduce fuel use and emissions while working seamlessly with the DDHS from Kim Hotstart.

Through a partnership with BNSF, this program utilizes the specialized equipment from Kim Hotstart Manufacturing Company and ZTR Control Systems to retrofit three diesel locomotive engines at the BNSF Vancouver switchyard. In addition to the three locomotives for the Vancouver, Wash. project, BNSF has indicated an interest to retrofit additional switchyard locomotive engines across the nation. “This cooperative project will help the people of Vancouver and the environment while acting as a catalyst for similar projects across the nation,” said Mark Stehly, Assistant Vice President of Environment for BNSF.

Two years ago, the U.S. EPA selected Kim Hotstart’s DDHS for its first funded project to reduce locomotive idling. BNSF stepped forward and took a leadership role in installing



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the devices on locomotives in their switchyard in Chicago. The project demonstrated that an idling locomotive could be shut down and save over 14,000 gallons of fuel per year while eliminating over two tons of emissions per year and reducing noise by eight to 15 decibels. "We are pleased that we were able to help BNSF achieve these results in Chicago and are excited to see them implementing our technology right here in our home state of Washington," said Rick Robinson, CEO of Kim Hotstart.

Another feature of this project is the equipment made by ZTR Control Systems that automatically shuts down the locomotive engine when it is not in use. This feature ensures that the environmental benefits of the project are guaranteed to be achieved. "ZTR Control Systems has been in the business of making the reduction of emissions a win-win situation for locomotive owners and the environmental community for over 15 years," said William O'Neill, General Manager of the Railway Division at ZTR Control Systems. "This joint effort with the U.S. Environmental Protection Agency, Kim Hotstart, BNSF, ZTR Control Systems and the Southwest Clean Air Agency is yet another example of our commitment to offer solutions that continue this tradition."

The U.S. Environmental Protection Agency (EPA) is hopeful that the fuel savings obtained from the use of this innovative equipment and the project's short payback time will stimulate a snowballing of applications across the United States. "EPA places a high priority on achieving reductions in diesel emissions and we are hopeful with the successful implementation of this project that the spread of this technology's application will take on a life of its own within the railroad industry from here forward," said John Iani, EPA Region 10 Administrator, in Seattle.

The Southwest Clean Air Agency, a local clean air agency headquartered in Vancouver, Wash., initiated the installation of the three retrofit devices on diesel switchyard locomotive engines in Vancouver's switchyard. "Our agency is pleased to have been able to help

nearby neighborhoods with the application of this innovative technology and at the same time be the first community in the Western United States to do so," said Bob Elliott, Executive Director for the Southwest Clean Air Agency (SWCAA). "This technology's impacts will be beneficial locally and also have broad application throughout the entire United States and Europe."

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Founded in 1968, the mission of the Southwest Clean Air Agency, a local clean air agency headquartered in Vancouver, Wash., is to preserve and enhance the air quality in southwest Washington. Serving the counties of Clark, Cowlitz, Lewis, Skamania and Wahkiakum, SWCAA is responsible for protecting the public's health through the enforcement of federal, state and local air quality standards and regulations.

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## Invitation to the General Public

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**What:** Vancouver Switchyard Idling Diesel Locomotive Project. The Vancouver switchyard idling diesel locomotive engines have been retrofitted to automatically shut down when not being used. This project significantly reduces air pollution levels, noise pollution levels and diesel fuel consumption.

**Who:** **Representative of Gary Locke, Governor** **Congressman Brian Baird**  
State of Washington Third Congressional District

**Royce Pollard, Mayor**  
City of Vancouver

**John Iani, Region  
Administrator**  
Region 10, U.S. EPA  
(Seattle, WA)

**Rick Robinson, Chief Executive Officer**  
Kim Hotstart Manufacturing Company  
(Spokane, WA)

**William O'Neill, General  
Manager**  
ZTR Control Systems  
(Minneapolis, MN)

**Mark Stehly, Assistant Vice President**  
The Burlington Northern and Santa Fe Railway Company  
(Fort Worth, Texas)

**When:** June 30, 2004 at 11:00 a.m.

**Where:** Amtrak Train Station north parking lot area (1301 W. 11<sup>th</sup> Street, Vancouver, Washington).

**Why:** Come see the locomotives up close! Observe how these Spokane, Washington designed devices lower air pollution levels and noise levels when they are automatically activated! Acknowledge Vancouver's appreciation for the quality of life improvement provided by this project and its participants.

**Come Join Us!**





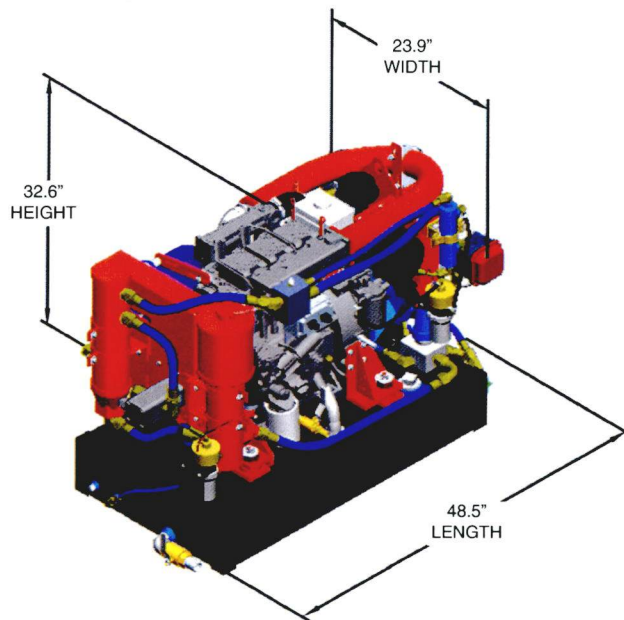
**KIM HOTSTART**  
SINCE 1942



Not Shown:

- Control Box
- Cab Panel
- 12-volt battery
- Wiring & plumbing to locomotive engine
- Installation kit (optional)
- ZTR SmartStart system (optional)

## Model DDHS-3A Diesel Driven Heating System



### What does it do?

The DDHS allows an idling locomotive to be shut-down by heating the locomotive engine coolant and oil, charging the batteries and powering the cab heaters. The DDHS is small enough to install on the walkway of a switcher or inside the car body where space allows.

### What are its features?

- 3-Cylinder, 27hp EPA Certified Diesel Engine.
- Consumes 0-1.23 gallons per hour of diesel fuel.
- System of heat exchangers provides up to 30kW of heat output to the locomotive engine fluids.
- Temperature controller regulates main engine coolant temperature between 100-120°F.
- 72-volt, 80 ampere alternator charges batteries and powers auxiliary cab heaters.
- 12-volt DC signal is available for visible/audible/wireless alarm (supplied by customer).
- Extended 22-gallon oil sump ensures long-life and minimal maintenance.
- Automatically starts/stops and changes speed as necessary to maintain locomotive coolant temperature and battery charging needs.
- Optional ZTR SmartStart system automatically shuts down and restarts both the locomotive and the DDHS to maximize fuel savings while maintaining engine temperature, brake pressure and battery charge. Also provides fail-safe redundancies, fuel savings reports and optional remote monitoring via satellite.
- Optional installation kits available
- U.S. Patent #4,711,204. Canadian Patent #1,260,784

### What are the benefits?

Shutting down an idling locomotive reduces fuel consumption, oil consumption, emissions, noise, engine wear and wet-stacking.





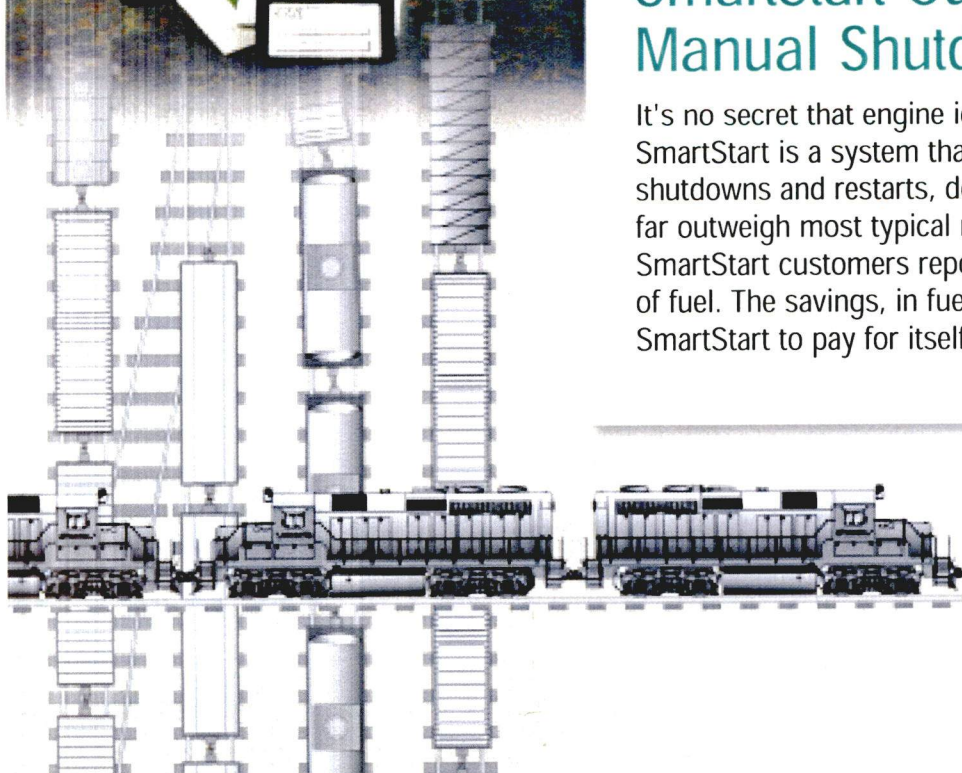
*SmartStart*<sup>™</sup>  
ZTR CONTROL SYSTEMS

The Industry Leader In Automatic  
Locomotive Shutdown/Restart Systems

Helping  
You   
Turn A  
Higher  
Profit

## SmartStart Outperforms Your Manual Shutdown Policy

It's no secret that engine idling affects your profitability. SmartStart is a system that manages locomotive shutdowns and restarts, delivering cost advantages that far outweigh most typical manual shutdown policies. SmartStart customers report saving millions of gallons of fuel. The savings, in fuel costs alone, has allowed SmartStart to pay for itself in 18 months or less.

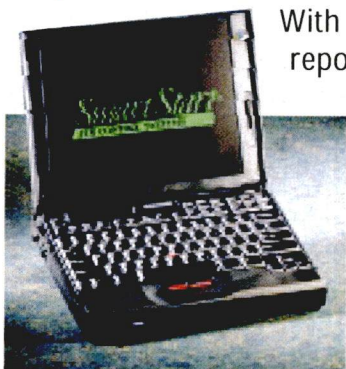




## The Benefits Prove It.

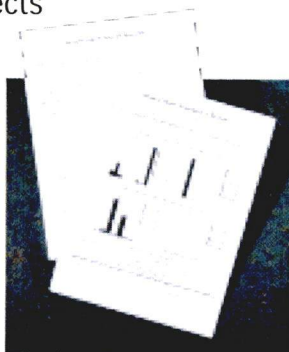
	SmartStart System	Manual Shutdown Policy
Reduction in fuel consumption	Yes	Yes
Reduction in lube oil consumption	Yes	Yes
Reduction in emissions	Yes	Yes
Extended component life	Yes	Yes
Active 365 days a year – 24 hours a day	Yes	No
Automatic management of locomotive shutdown	Yes	No
Continuous monitoring of parameters before allowing shutdown	Yes	No
Continuous monitoring and restart of locomotive as required	Yes	No
Maintains locomotive in a ready to use state	Yes	No
Significant reduction in heavy exhaust smoking on restart	Yes	No
Provides information on general locomotive conditions	Yes	No
Provides documentation and verification of fuel savings	Yes	No
Offers year-round fuel savings even in colder climates	Yes	No

## Report Generation Tracks All Aspects Of Performance



With a built-in reporting feature, SmartStart gives you all the facts regarding the activity of your system. You'll know the number of times it has shut down your

locomotive, for how long and how much you've saved. All aspects of performance are tracked, including the amount of time and dollars lost when shutdowns were not able to occur. And... SmartStart is equipped with an integrated diagnostic



program for quick, accurate troubleshooting which can prove invaluable to your maintenance operation. If needed, further assistance is only a phone call away.

## SmartStart Customized For Your Locomotive

SmartStart is custom engineered to your locomotive, with accurate installation instructions. Its microprocessor provides you with the capability to access additional ZTR Control Systems options like fan cycling, high idle control, duty cycle reporting and kilowatt hour recording.

## Make The Call Today

The sooner you call, the sooner you'll realize how SmartStart can help increase your profitability by more effectively managing your shutdown policy. ZTR Control Systems can also help with financial options that reduce your up-front costs.



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