



ON THE AIR

Fall
2008

A Newsletter about
Clean Air. Provided
by Spokane Regional
Clean Air Agency.

Washington Clean Cars in 2009

Thinking about purchasing a new car? The new clean car standards are effective with the 2009 models. A bonus: you won't ever have to get an emissions test!

In 2005, the Washington State legislature passed legislation adopting clean car standards for cars, light trucks and medium duty passenger vehicles (SUVs and passenger vans) beginning with 2009 models.

These 2009 models must meet new standards to be registered, leased, rented, licensed, or sold for use in the state of Washington.

There are two types of vehicle standards: federal standards and California clean car standards. The California clean car standards significantly reduce greenhouse gas emissions and air pollutants from cars and trucks.

The federal Clean Air Act allows states to adopt California clean car standards and in those states which do not, the federal standards apply. Twelve states besides Oregon and Washington have adopted clean car standards or are in the process of doing so.

If you have questions, please contact Brett Rude, (360) 407-6847. ■

Air Quality & Mother Nature

Remember the old adage: Don't fool with Mother Nature, or she'll fool with you? Mother Nature fools with our air quality now and again.

Air quality this past summer was pretty good—at least in terms of ozone (smog) levels.

“With the new federal ozone standard we figured there would be a few problem days, but that didn't happen,” said Ron Edgar, Chief of Technical Services. “We didn't have extended air stagnations which helped a lot,” added Edgar.

The weather did have a negative impact on August 18, when gusty winds contributed to a dust storm, which sent particulate matter - PM₁₀ (10 microns in diameter and smaller) above federal, health-based standards.

Smoke from area wildfires also affected air quality, but not to the degree of the dust event.

Summer is a reminder that, to a certain extent, air quality is at the mercy of Mother Nature. As for our ozone levels, she cooperated this summer. But, she didn't so much with the dust. Maybe next summer. ■

✓ Emissions Check

Motor vehicles remain Washington's largest source of air pollution. The Emission Check Program has been instrumental in improving and maintaining air quality in cities across our state.

Gasoline and diesel vehicles between 5 and 25 years old are required to go through the emissions check program every-other-year. Motorcycles and scooters do not need to be tested. The cost is \$15 and can be paid in cash (no bills over \$50), credit/debit cards or by check with ID.

Beginning with the 2009 models (which will be required to meet the state's new emission standards) the Emissions Check Program will no longer apply (they'll never have to be emissions tested.)

State law authorizes the emissions inspection program until 2020, if it is needed to prevent air quality violations. Ecology projects that a phase-out of emissions testing is possible because of the increasing number of vehicles with improved emission controls that perform better and last longer.

State law also requires that additional businesses, including auto repair shops other than the operator of the test stations, be authorized to emission test vehicles starting July 1, 2012.

For more information, contact John Raymond at (360)-407-6856.

Cleaning Up “Thomas the Tank Engine”

by John Williamson, Communications Intern

Choo! Choo! The sound of locomotives whistling through your town may bring back fond memories. Perhaps Thomas the Tank Engine comes to mind, or images of 18th and 19th century Western expansionism with all its danger, ruggedness and excitement. For many Americans, locomotives are firmly embedded in their country’s narrative, perhaps their own personal stories. Locomotives continue to play an integral role in moving people and products across our nation. In doing so, locomotives have a measurable impact on the environment and work is underway across the nation to reduce their impact.

Locomotive engines are significant contributors to air pollution in many of our nation’s cities and ports. Although locomotive engines being produced today must meet relatively modest emission requirements set in 1997, they continue to emit large amounts of nitrogen oxides and particulate matter (PM), both of which contribute to serious public health problems.

Diesel exhaust particles are less than one-fifth the thickness of a human hair and can easily enter the lungs, contributing to increased risk of heart disease, cancer, asthma and other respiratory problems. Elderly, children and people with and chronic heart and lung disease are particularly sensitive to diesel pollution. Locomotives are a primary source of these pollutants. One 1999-2000 study conducted by the California Air Resources Board found elevated concentrations of diesel particulate mat-

ter severely impacted the area around a rail yard. Other studies have confirmed similar results.

Cleaning up fuel and improving engine technology

The United States Environmental Protection Agency (EPA) took a first step towards cleaning up locomotive exhaust by improving emission standards for locomotives in 2000. Older locomotives are being retrofitted with emission controls when they are remanufactured, which is typically every 5 to 20 years.



Idling reduction technologies have been installed in a Vancouver, Washington switch yard, under a program coordinated by the Southwest Clean Air Agency.

for new and remanufactured locomotives, aiming to cut particulate matter emissions by 90 percent and nitrogen-oxide emissions by 80 percent when fully implemented.

Exposure to diesel exhaust particles increases risk of heart disease, cancer, asthma and other respiratory problems. Locomotives are a primary source of diesel particle pollution.

In 2004, under the Clean Air Nonroad Diesel Rule, EPA set requirements for nonroad diesel fuel that will decrease the allowable levels of sulfur in fuel used in locomotives by 99 percent. These fuel improvements will create immediate and significant environmental and public health benefits by reducing emissions from existing engines.

In 2008, EPA finalized a three part program that will dramatically reduce emissions from diesel locomotives of all types -- line-haul, switch, and passenger rail. The program sets even more stringent exhaust emissions standards and idle reduction requirements

Additionally, the EPA has established an emission testing program to ensure locomotives comply with standards throughout their lifespan. The EPA now requires locomotives to comply with the emission standards over a high-power cycle for cross-country operation and a low-power cycle for freight yard operation. There are also regulatory incentives for locomotives to be redesigned to automatically shut down if they are left idling for extended periods of time.

Local Company’s Innovation Utilized Around the Globe

The average locomotive produces as much emissions as 11 semi-trucks. Because of the difficulty in starting up cold engines, locomotives often are left idling for hours or days. Beyond wasting fuel, idling also causes excessive noise and engine wear.

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Locomotives *Continued from previous page*

Overall, idling trucks and locomotives consume 1.2 billion gallons of diesel fuel and produce more than 200,000 tons of nitrogen oxides each year, according to EPA estimates. Yet due to the difficulty in starting up cold diesel engines, shutting locomotives off in cold weather has historically been avoided as much as possible.

A Spokane-based company, Kim HOTSTART, is helping railways around the globe meet and even surpass these new regulations, offering a variety of engine idling reduction solutions. Each day, more locomotives are outfitted with engine warmers, reducing idling and keeping the environment cleaner.

Idle reduction technology has actually been around since 1942 when Kim Hotstart started business with the first patent for an engine coolant heater.

“The first engine heaters were used on trucks and buses, which we still do today,” according to Terry Judge, Director of Sales & Marketing for Kim Hotstart.

Besides trucks and buses, the company makes engine heaters for generators, gas pipeline compressors, construction and mining machinery, boats, ships and locomotives. The heaters are typically powered by electricity.

“In a locomotive application, the crew brings the locomotive back home at the end of the day, shuts down the engine and plugs in the heating system to shore power. The system keeps the engine temperature between 100°F and 120°F even over long, cold nights or weekends. When the crew comes back to work, they

unplug the system and easily restart the engine,” explained Judge.

The company has been selling this type of locomotive system since the 1960s. However, there are many cases where it is not possible or convenient to plug into electric power. So, in 1996, the company began developing a stand-alone, engine-based system that operated off the locomotive’s diesel fuel supply and did not have to be plugged-in. Now, the crew can shutdown the locomotive anytime, anywhere and the system automatically kicks on and maintains engine temperature until the locomotive is restarted.

The HOTSTART diesel driven heaters, or APUs as they are sometimes called, have been purchased by railroads across the country from mammoth BNSF to tiny EWGR (Eastern Washington Gateway Railway) located right here in Spokane County.

The HOTSTART Senior diesel driven heater costs \$33,000 and the Junior system costs \$18,000. The electric systems run \$3,000-\$14,000.

“When the railroad considers how much idling they do, how much fuel is consumed by the locomotive when idling (typically 3-11 gallons per hour) and the cost of diesel fuel, they figure a very fast payback and the payback for our community is reduced pollution,” added Judge.

For more information about locomotive engine idling, visit <http://www.epa.gov/nonroad/locomotive.htm>.

To learn more about Kim HOTSTART, visit <http://www.kimhotstart.com>. ■

Proposed Changes to Outdoor Burning

Spokane Regional Clean Air Agency is proposing to amend the outdoor burning regulations in Spokane County. A few key changes include:

- ✓ Discontinue administration of the 8-day residential (yard & garden) burning program
- ✓ Phase-out residential land clearing burning in Spokane County after December 31, 2010
- ✓ Allow noxious weed control burn permits to be issued directly by the Spokane County Noxious Weed Control Board

These programs, and others remain unchanged:

- ✓ Fire Hazard Abatement
- ✓ Recreational Fires
- ✓ Agricultural Burning
- ✓ Silvicultural Burning
- ✓ No Burn Area and Urban Growth Areas remain “no burning”
- ✓ Enforcement of outdoor burning regulation

Current outdoor burning regulation and proposed amendments are available at www.spokanecleanair.org or call for a copy: 477-4727.

Written comments on the proposed regulation will be accepted until 4:30 p.m. on September 23, 2008. Comments may be sent to Spokane Regional Clean Air Agency, Attn: Matt Holmquist, 1101 W. College, Ste 403, Spokane, WA 99201 or mholmquist@spokanecleanair.org.

A public hearing on the proposed changes will be Thursday, October 2, at 9 a.m., during the monthly board meeting in the lower level of the Spokane County Public Works Building, 1026 W. Broadway Ave.

◆ AIR QUALITY CALENDAR ◆

- Now!** Sign-up now for our free e-mail listserv! You can choose to receive a variety of emails, including newsletters, wood burning bans, news releases, regulatory updates, etc. Go to www.spokanecleanair.org and click on the icon under our "welcome greeting."
- Oct. 2:** Board of Directors meeting, 9 a.m., Lower Level, Commissioners Hearing Room, Spokane County Public Works Bldg, 1026 W. Broadway Ave. Agendas and minutes are posted online.
- Oct. 4:** Free Chipping & Composting Day, 10 a.m. - 3 p.m., Fire Station 82 at 12100 E. Palouse Hwy. Call 625-6800 for more information.
- Nov. 6:** Board of Directors meeting, see details above.

A move is in our future!

Spokane Clean Air is moving into a new building recently purchased at 3104 E. Augusta Ave., just west of Spokane Community College. The move should occur by the end of the year.

Meet our newest Board Member: Rose Dempsey

Spokane Valley City Council Member, Rose Dempsey, recently joined the Board of Directors of the Spokane Regional Clean Air Agency. She fills the "City of Spokane Valley representative" position, previously held by Steve Taylor.

Dempsey agreed to serve on the clean air board after being asked by Spokane Valley Mayor Munson.

"I was perturbed about the burning on the Rathdrum Prairie because both my husband and daughter are very affected by it," explained Dempsey. "And, it used to be that you would come down

Sunset Hill and there would be this brown fog hanging over Spokane and it's not there anymore and that's great," she added.

Dempsey's experience living and traveling abroad has deepened her appreciation for clean, healthy air.

"The pollution in some places is staggering...I feel that air quality in Spokane County is very important."

"My grandmother, God rest her soul, used to say, 'Mother Nature will take care of it,' well Mother Nature is overwhelmed." ■

Take Note!

On the Air is a publication of the Spokane Regional Clean Air Agency. Its purpose is to inform local residents on all aspects of outdoor air pollution. Please contact Lisa Woodard, *Editor*, with comments or story ideas:
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