

A Parade of Inspectors

Business owners and managers must wonder at times why so many inspections take place at their facilities each year. Inspections by regulatory agencies are to ensure regulations are being adhered to in order to protect public health, safety and the environment. Each agency conducting on-site inspections is looking at different aspects of the operations.

To illustrate this, we're highlighting a gasoline station located in the City of Spokane that also has a convenience store selling food. The business does not operate a mechanic shop. Following is a brief description of each agency's role in permitting and/or inspecting this type of business.

Spokane Regional Health District Food Safety Program performs annual food preparation and safety inspections at gas stations that offer non-exempt items to the public (for example: meat, dairy, hot dogs, sandwiches, espresso drinks, food prepared or repackaged on-site, as

well as commercially pre-packaged potentially hazardous foods such as frozen meals, milk, lunch meats, etc.) During the inspections, food handling procedures, equipment, facility construction, food worker permits and other items are checked for compliance. The annual food establishment permit fees in 2008 ranged from \$230 - \$320 for most gas stations, depending on the types of food offered.

City of Spokane Fire Department performs annual fire safety inspections to verify that the emergency shut off is accessible, fire extinguishers are present and up-to-date, spill buckets are free of liquid or debris, tank monitoring equipment is functional, and proper warning signage is visible. The annual permit fee is \$60 per underground storage tank (UST.)

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Engineering & Compliance Activities

Spokane Clean Air employs three air quality engineers who are responsible for reviewing and approving facility permit applications, reviewing facility annual testing results and maintaining emissions inventories.

The agency also employs five air quality specialists who are responsible for conducting annual inspections and compliance assistance at over 600 registered facilities. Duties include: enforcing air pollution regulations related to wood burning, outdoor burning, smoke and dust, asbestos, and following up on air pollution complaints the agency receives from concerned citizens.

Below is a summary of activities in 2008:

- ✓ Facility inspections 314
- ✓ Existing facilities registered (FY08)... 647
- ✓ New facilities registered..... 3
- ✓ New source reviews—Notices of Construction (NOCs) approved 19
- ✓ Temporary source reviews—Notices of Intent (NOIs) approved 11
- ✓ Asbestos inspections..... 100
- ✓ Notices of Violation (NOVs) issued... 45
- ✓ Air quality complaints received 741

Tom Brattebo Appointed to Board of Directors

Tom Brattebo, Liberty Lake resident and longtime resident of the Spokane area, was recently appointed by the Spokane Clean Air Board of Directors to fill the Board's Member-at-Large position. The position was previously held by Melissa Ahern, who resigned recently to fulfill other obligations.

Brattebo has served on Spokane Clean Air's Advisory Council for over seven years. He also did a six-month stint for the Agency as an

AmeriCorps member in charge of implementing the No-Idle Zone program at schools in Spokane County. Brattebo retired from Kaiser Aluminum. He also taught at the West Valley Outdoor Learning Center.

"I believe that my professional experience in the industrial sector, as well as my experience in environmental education provides a unique perspective that I look forward to bringing to the Board," said Brattebo.

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Dust Collectors: From Baghouses to Wet Scrubbers...

Maintenance is the Key By April Westby, Air Quality Engineer

One of Spokane's air pollution problems is fine particulates—particles so small they are inhaled deeply into our lungs where they can cause long-term harm. Air quality regulations limit the level of particulate pollution coming from industrial processes, generally through the use of dust collection devices.

There are several types of collectors used to control particulate matter. When selecting the type of collector to use, several factors must be considered, including the size and shape of the particles to be collected and the temperature and moisture of the airstream. The most common dust collectors are described below.

Cyclones remove particulate through centrifugal force by forcing the gas stream to flow in a spiral pattern. Historically these were used as stand-alone dust collectors. Fine particles are not efficiently collected by cyclones, so they are not adequate to meet air pollution regulations. Today, they are commonly used as a pre-treatment step to remove large diameter particles prior to using fine particle collection devices.

Baghouses or Fabric Filters are the most common type of dust collectors used. These operate on the same principle as a vacuum cleaner. Air carrying dust particles is pushed through a cloth bag, leaving the dust to collect on the bag. The dust is periodically removed from the cloth by shaking or reversing the air flow. Sometimes, these devices utilize cartridge filters instead of bags to capture particulate matter. Baghouses are very efficient in filtering small particles.

Electrostatic Precipitators (ESPs) utilize electrical force to impart a charge and thereby separate particles from an air stream. ESPs have a high level of control efficiency and can control high temperature airstreams; however, they are costly to install.

Wet Scrubbers collect particles by direct contact with a liquid. These devices are particularly effective when controlling particulate from moist airstreams. Scrubbers can also remove some gaseous and/or odorous pollutants, simultaneously with the particles. Wet scrubbers are costly to operate and can create a liquid waste problem.

Maintenance is the Key

To capture particulate matter effectively, dust collectors must be maintained in good working order. Following manufacturer recommended preventive maintenance schedules helps ensure that the device maintains its high level of particulate control efficiency.

Monitoring—Closely monitor operating parameters such as pressure drop and temperature, to recognize and correct a problem before a violation of air pollution regulations occurs.

Recordkeeping—Records of maintenance activities performed, pressure drop readings and clean out must be kept at all times for review.

On-site Inspections

During a site visit, inspectors review:

Operations

- ◆ Is the device maintained in good operating condition according to manufacturer recommendations?



A baghouse in operation at a facility in Spokane

- ◆ Is the pressure drop and temperature within acceptable ranges?
- ◆ Are visible leaks of particulate matter absent during operation?
- ◆ Are visible emissions absent from the exhaust stack?
- ◆ Is the hopper load-out area free of accumulated particulate matter?
- ◆ Are the paved areas around the site free of tracked particulate matter?

Records

- ◆ Are records of maintenance activities available for review?
- ◆ Are records of pressure drop readings available for review?
- ◆ Are records of clean-out kept?

The Dividends

When maintained and operated properly, dust collection systems can effectively reduce and prevent harmful particulates from entering the air. If you have questions or concerns regarding dust collection devices, call April Westby, 477-4727, ext. 105. ■

Inspectors....continued from cover page

Spokane Regional Clean Air Agency conducts periodic inspections during which the air pollution control equipment on the gasoline storage tanks and gasoline dispensers are inspected to ensure they are well-maintained and functioning properly.

Inspectors review maintenance records, testing results (if required), throughput records in addition to verifying current air quality permits. Annual registration fees are based on annual throughput and range from \$400 to \$900 per year.

Washington State Department of Agriculture, Weights and Measures inspectors examine motor vehicle fuel dispensers every 28 months on average. They check for dispenser accuracy, security seals, signage and if dispensers are in good repair. Inspectors also verify current registration with the State Department of Licensing. Inspectors sample and

test motor vehicle fuels at retail locations for quality, octane levels and water content.

Washington State Department of Ecology (Ecology) inspectors perform inspections on underground storage tanks every three years. They confirm the type of tanks and piping used and ensure that proper tests are being performed for release detection and, if needed, corrosion protection. Inspectors also verify that proper spill and overfill prevention equipment is installed and operating correctly and check for current pollution liability insurance, master business license, facility compliance tag and overall recordkeeping. Annual permit fee is \$140 per tank.

Hazardous Waste (HW) visits are conducted at gas stations with auto mechanic shops. Typically the visits provide technical assistance on proper waste management and suggest

ways to reduce the amount of HW generated. Spokane Regional Health District is partnering with Ecology to conduct technical assistance visits in the Spokane area. Ecology may also conduct a compliance inspection, usually in response to a complaint or because a business generates a large amount of HW.

The Spokane City Stormwater Program and/or the WA Department of Ecology responds to complaints of illegal dumping of wastewater or other liquids down storm drains, dry wells or onto streets.

So, as you can see, there are at least six different public agencies interested in activities at a gasoline station. The inspections reflect each agency's regulatory realm and are designed to ensure the safety of the customers, employees and the general public—all who could potentially be affected by the actions of the business. ■

Inspect Your Inspector, Protect Yourself

By Deanna Clarkson, Air Quality Specialist

It seems every day the news carries stories of unsuspecting folks cheated by phony investment schemes, identity theft and other types of fraud.

Earlier this year in Illinois, two communities were bilked out of \$25,000 in a scam conducted by individuals falsely claiming to be EPA inspectors.

A local gas station employee recently told a Spokane Clean Air inspector that a party claiming to be conducting a study for a local university solicited money from

his facility's customers in a credit card scam. And last summer, a person claiming to work for Spokane Clean Air collected a fine at a Spokane residence.

Although Spokane Clean Air compliance personnel (inspectors) routinely arrive unannounced for inspections and site investigations, the inspector(s) will carry photo identification and will not hesitate to show this identification when asked. If you have doubts about an inspector, call Spokane Clean Air, 477-4727 during business hours

(8 a.m.-4:30 p.m., Mon.-Fri.).

It's important to know that Spokane Clean Air employees will *never* request payment of fees or fines on site for any reason. Spokane Clean Air penalties are payable only after issuance of a Notice of Violation and through a process where payment will be requested through the mail. All invoices will carry the Spokane Regional Clean Air Agency name and address, 3104 E. Augusta Ave., Spokane WA 99207.

For more information, call Deanna Clarkson, 477-4727, ext. # 106. ■

Regulation & Program Update

Annual Registration Fees and Notice of Construction/Intent Fees—Spokane Clean Air is committed to achieving full cost recovery on its fee-based programs, therefore the Agency is planning to increase fees over the next few years to recover actual direct and indirect program costs. Following a public comment period and hearing, the Board approved the proposed fees at the June 4 public hearing.

Revised Gasoline Facility Guidebook Now Available—an updated guidebook for owners/operators of gasoline dispensing facilities located in Spokane County is now available. The guidebook provides information on local requirements, compliance assistance information and self-inspection forms. Order your free copy today: call 477-4727.

Rendering Rule Update—in January 2009, staff developed a draft regulation establishing standards for rendering facilities in Spokane County. From February 17 until March 13, a preliminary public comment period was held on the draft regulation. Based on comments received, the draft regulation may be revised and a second informal comment period held before initiating formal rulemaking.

Meet Derek Aubrey, AQS

Derek Aubrey is the newest member of our Compliance Section. He was hired in January to fill an Air Quality Specialist (AQS) vacancy.

Derek began his career in 2001 as a firefighter for the Washington State Department of Natural Resources (DNR). He later was promoted to a fire warden who investigated wildfires and served command positions on wildfire incidents. Prior to leaving DNR he worked as a crew supervisor at Airway Heights Correction Center, supervising 10 inmate workers.

Derek and his wife just welcomed their first child in April. Welcome aboard Derek!

Outdoor Wood-fired Boilers

With the rising cost of heating oil, more Washington residents are looking to wood as a source of heat and hot water. But not all wood heat is the same. While indoor wood stoves have been tested and certified by EPA for emissions since 1990, manufacturers of outdoor wood-fired boilers (OWBs) are participating in a “voluntary” certification program and the devices are not allowed to be sold in Washington (see more details below). These devices can emit dense smoke from very short smoke stacks, releasing smoke at the level where people breathe it. This smoke endangers your health, and that of your family and neighbors, as well as harming the environment. Even the cleanest outdoor wood-fired boilers emit 3 to 5 times more pollution than a certified wood stove meeting Washington emission standards.

What are Outdoor Wood-fired Boilers?

OWBs are wood-fired water heaters that are located outdoors or are separated from the space being heated. The devices heat water that is circulated into the home through underground pipes. The energy may be used to heat houses, shops, domestic hot water, greenhouses, swimming pools and spas. Indoor installed boilers are a variation of an OWB. They are in the same legal category as OWBs and subject to the same regulations.

Are OWBs legal in Washington?

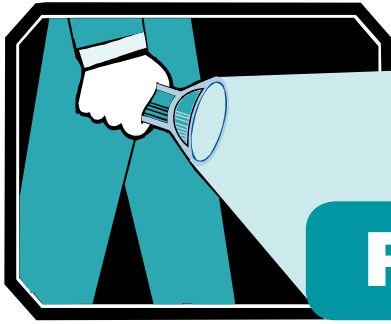
Outdoor wood-fired boilers cannot be legally sold in the state of Washington until a manufacturer can prove its OWB meets Washington’s emissions standards.

To prove an OWB meets Washington’s standards, a manufacturer must:

- ✓ have the device tested using a test method that Ecology considers adequate and acceptable; and
- ✓ submit test results to Ecology showing the OWB emits no more than 4.5 grams of fine particles per hour.

The U.S. Environmental Protection Agency has a voluntary program for manufacturers of outdoor wood-fired boilers. Boilers that are accepted into this program meet stricter guidelines and pollute less; however, according to Ecology, these boilers pollute too much to be allowed in Washington. You can find more information on this program at <http://www.epa.gov/owhh/models.htm>.

If you have any questions about outdoor wood-fired boilers, please contact us at 477-4727.



Business Spotlight

Ross Printing Company

Ross Printing Company was presented with the 2009 Clean Air Award at a ceremony in January. The award is presented annually by Spokane Clean Air to an organization that has consistently demonstrated a commitment to reduce air emissions.

“The award is given to publicly express our appreciation for innovation and to encourage others to follow suit,” said Bill Dameworth, Director of Spokane Clean Air.

Spokane’s oldest printing company found that green business initiatives often overlap with the printing industry’s best practices.

In 2008, Ross Printing implemented two major pollution prevention upgrades in an effort to conserve energy while reducing air emissions and hazardous waste. The company installed a new, solvent-free flexographic plate setter—a plate making system that combines the environmental and productivity benefits of thermal processing technology with the print quality and efficiency that the digital workflow has to offer.

There will be a 100% reduction in VOCs by using this new process, compared to the traditional solvent wash process. There are four key elements that make this solvent-free technology successful:

- ◆ The specially-formulated thermal photopolymer plates
- ◆ A digital (computer to plate) image setter

- ◆ An Ultra Violet (UV) exposure unit that sets the image into the plate with massive amounts of UV lights.

- ◆ A thermal developer that creates the relief structure on the printing plates without the use of solvents. The thermal process melts and removes the unexposed regions of the plate by the use of an absorbent development medium.

The second upgrade was a collaboration with Avista Utilities and Cougar Mechanical to install an energy efficient heating and cooling system in the company’s 35,000 square foot production facility. In the first six months of operation, an 8% reduction in electricity consumption and a 25% reduction in natural gas consumption has been achieved. Ross Printing is also looking at retrofitting its lighting ballasts to use low-energy bulbs.

“Our industry as a whole is probably cleaner now than any other time in its long history,” said Alan Ross, President and General Manager of the organization.

The effort to reduce their environmental impact doesn’t end there. Ross Printing has implemented additional waste and energy reduction measures over the past few years:

- ◆ Switched to low-VOC, soy-based inks and an alcohol-free press wash. When comparing emissions data from the past two years, Ross Printing had a 50% reduction in VOC emissions, from 1.5 tons to 0.8 tons per year.
- ◆ Recycled 34 tons of paper waste annually.



Going green isn’t just about cost savings. “We know this issue is important to our customers,” explains Benjamin Ross, Sales Manager for Ross Printing.

“We’re seeing more customers ask about papers made from 100% post-consumer material and we’re very excited to be able to meet that demand. We want people to know we’re thinking about these things,” continues Ross. “When we evaluate a new or existing process, one of the questions we’re asking is whether there is a green alternative and whether we can make it work for us. We take sustainability very seriously.”

Ross Printing provides digital, flexo and litho printing to customers in the Inland Northwest and across the United States. Located in Spokane’s historic East Sprague business district, the company has been a family-owned operation since opening in 1917.

Kudos and congratulations to Ross Printing! ■

Air . Quality . Notes

UPDATE is published by the Spokane Regional Clean Air Agency (Spokane Clean Air) as part of its Compliance Assistance Program. Comments, suggestions and article ideas may be directed to Update Editor Lisa Woodard.



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To add or remove names to the **UPDATE** mailing list, call 477-4727.

Spokane Regional Clean Air Agency 2009 Board of Directors:

Tom Brattebo, Member-at-Large
Jeff Corkill, City of Spokane Representative
Edward "Chuck" Crockett, Small Cities & Towns Representative
Rose Dempsey, City of Spokane Valley
Bonnie Mager, Spokane County Commissioner

Board of Directors meetings: Unless otherwise publicized, the Board of the Spokane Regional Clean Air Agency conducts its monthly meetings at 9 a.m., on the first Thursday of each month. The meetings are held at the Agency's office, 3104 E. Augusta Avenue (northwest corner of Mission and Greene). The meetings are open to the public and all are encouraged to attend. Requests for special accommodations/translation services should be made 48 hours in advance by phone: 477-4727 or fax: 477-6828. Meeting agendas and approved minutes are online at www.spokanecleanair.org.

Preserve, enhance and protect the quality of Spokane County's air resources for the benefit of current and future generations.

Spokane Regional Clean Air Agency's Mission

UPDATE

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