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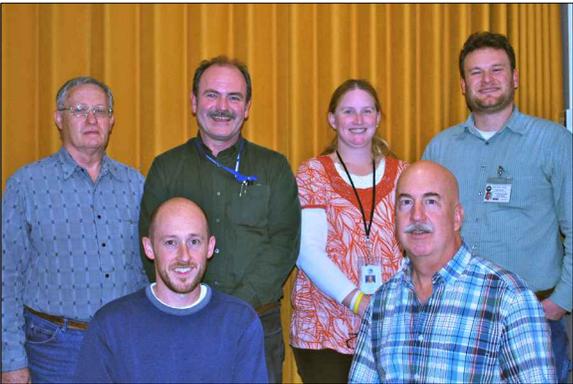
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New Executive Board Focused on the Future

With the 2012 Annual Conference now behind us, the event was largely considered a success. A series of informative speakers presented on relevant environmental health issues, new Board members were elected, and one of the most entertaining fundraising auctions in recent memory was a highlight.

The Annual General Meeting set the stage for an earnest discussion regarding the future of OEHA and its membership. The Board was pleased to get such valuable feedback from so many passionate EHS's.

The new Board has since held its first meeting on November 6th in Salem, where it began evaluating the feedback of members in the time since the last Annual Conference. The next Board meeting will be held January 15th, in Salem. The meeting is open to all interested parties. In the new year, expect more specialized offerings to EH professionals with greater emphasis on incentives for OEHA members.



Board members, back row (l to r), Delbert Bell, Bill Emminger, Tabitha Howell, Ian Stromquist. Front row (l to r), Jeremy Long, John Mason.

Our new Board President, Delbert Bell, will also be representing OEHA at the 2013 NEHA Annual Education Conference next July in Washington, DC.

Inside This Issue

A Simple Form..... 2

EH Emergency Response..... 2

Non-traditional EH Specialists..... 3

Winterizing Swimming Pools..... 4

Boil Water Notices..... 5

Mystery Meat & a Health Inspector..... 6

Future Events

- Oregon Health Licensing Agency, EH Registration Board Meeting, Salem, January 11, 2013, 9:30am, www.oregon.gov/OHLA/EHS/Pages/meetings.aspx
- Oregon Environmental Council, 5th annual Northwest Environmental Health Conference, Portland, March 15 2013, <http://www.oeconline.org/nwehc>.
- Oregon Health Authority, Drinking Water Program Annual Conference, Silver Falls, April 2-3, 2013.
- Environmental Health Specialist Day, April 23, 2013.
- NEHA Annual Education Conference, July 9-11, 2013, Washington DC, <http://neha2013aec.org/>

The Art of Non-Public Health – Public Health: A Simple Form Offers a Simple Solution

By Ian Stromquist, REHS

On my first day as new 'Environmental Health Specialist Trainee', I was told to always ponder one question while performing inspections: "What's the risk?" I went on to read Salvato's 'Environmental Engineering' omnibus. Afterwards, I felt I understood that the essence of the environmental health profession is to protect human habitat. However, this broad directive fails to describe a very time-consuming aspect of our profession: non-public health rules & laws enforcement.

For nearly all facilities we regulate, project proponents are subject to a variety of land-use laws, anti-competition rules, and other seemingly arbitrary limitations. These rules often force environmental health officials to deny license applications or even revoke existing licenses when these rules are found to be violated. While I may have my own opinions regarding the risk of allowing a mobile food unit to remove axles, a temporary restaurant to operate perpetually, or allowing a commune to erect yurts without building permits, the rules we are tasked with enforcing include more than just public health rules often requires a partnership between our offices and several other local agencies and departments within our communities.

To streamline this process, Hood River County Health Department has implemented a policy of requiring new project proponents to collect signatures from applicable agencies prior to issuing licenses to operate. An example of the form is available at: <http://www.co.hood-river.or.us> (Click: 'County Departments' → 'Health Department' → 'Environmental Health' → 'Plan Review Sign-Off Form').

Since implementation of the program, Hood River County Health Department has been able to strengthen our relationship with other local agencies and have prevented several project proponents from proceeding with business plans that do not comply with other local laws and regulations. As well, it has ensured that proponents acquire the necessary permits (including plumbing, electrical & building) whenever they make changes to their facility.

If your agency wishes to use this form (or some variation) feel free. If you have questions regarding the procedures regarding this form, please contact Ian Stromquist at: 541-387-7130

Agency	Date	Signature	Comment	Permit #
<input type="checkbox"/> Local City Planning Dept				
<input type="checkbox"/> Local City Building Dept				
<input type="checkbox"/> Hood River County Planning & Building Dept				
<input type="checkbox"/> Local Fire Department				
<input type="checkbox"/> Mid Columbia Building Code Services - Planning				
<input type="checkbox"/> Mid Columbia Building Code Services - Electrical				
<input type="checkbox"/> Oregon Liquor Control Commission (OLCC)				
<input type="checkbox"/> Oregon Department of Environmental Quality, Clean Water Resource Management Program				

Environmental Health Training in Emergency Response (EHTER)

Lane County REHS's Amy Bleekman, Zack Manning, and Zach Roberts recently completed training at the Center for Domestic Preparedness (CDP) in Anniston, Alabama. CDP is operated by the United States Department of Homeland Security's Federal Emergency Management Association (FEMA).

EHTER demonstrates through teaching and exercises on how to apply environmental health information in an emergency setting. The training also addresses the following environmental health issues including: food safety, potable water, wastewater, shelters, vector control, responder safety, disaster management, solid waste and hazardous materials, building assessments, and radiation.

We highly recommend this awareness level course, as it has vastly increased our confidence, and solidified our knowledge of the role we play in emergency situations.

The food and hospitality were great too. We were well-fed, met a lot of great people, and were instructed by extremely experienced and personable instructors. Best of all, it was all free of charge to our department. Travel, lodging, and food were arranged and covered by the CDP.

Visit <http://edp.dhs.gov> for more information about CDP training programs. For more information about the CDP, contact CDP External Affairs at (256)-847-2213/2316 or e-mail pao@cdpemail.dhs.gov.

Non-traditional EH Specialists at the Oregon Health Authority

by Barbara L. Stifel, Oregon Health Authority – Center for Health Protection

Traditionally, environmental health specialists (EHS) have primarily maintained control over food safety practices by preventing contamination in food preparation environments. As an EHS in the Oregon Health Authority's (OHA) Center for Health Protection (CHP) however, I help the public protect their health by limiting their exposure to toxics in their environment (such as in fish).

Fish advisories - Most of Oregon's waters contain fish that are safe to eat. However, the CHP advises that people limit or avoid eating certain species of fish containing unsafe levels of toxics. These advisories may include recommendations for specific groups like pregnant women or young children. Currently Oregon has sixteen fish advisories for water bodies around the state.

Most of the consumption advisories issued in Oregon are for mercury in fish. PCBs released from industrial settings are also responsible for some of the advisories. These chemicals can persist for long periods in sediments and pass up the food chain to fish. The levels of these contaminants may increase as they move up the food chain, so top predators (like bass) may have levels several orders of magnitude higher than the levels in the water they live in.

Consuming fish with high levels of either mercury or PCBs can be harmful to unborn babies and young children under the age of six. Women of childbearing age can also be at risk of passing the contaminant along to their children. The primary health effect of mercury is impaired neurological development. PCBs can impair reproduction, cause neurobehavioral and developmental deficits, impair immune system and thyroid function, and increase cancer risk.



CHP workers collecting fish for contamination studies.

Please call CHP if you have any questions at 971-673-0440 (ask about fish advisories). For a recorded message listing current fish advisories call 1-877-290-6767 or go online: www.healthoregon.org/fishadv

Another non-traditional EH Professional at OHA - As a health physicist in Radiation Protective Services (RPS), Daryl Leon is trained to protect the public and the environment from unnecessary radiation exposures while taking advantage of its benefits. Health physicists are employed in a variety of disciplines including education, research, industry, regulation, environmental sciences, medicine and toxicology. Daryl finds this profession both very challenging yet rewarding.

Radiation is used extensively in healthcare for medical imaging and therapy, non-destructive materials testing, sterilization of foods, and generating electrical power. However, radiation can become harmful when used with unsafe practices which can lead to unnecessary radiation exposure of employees and the general public and create environmental contamination.

Health physicists employed by RPS have the knowledge and skills to regulate different radiation hazards. They ensure that protections are implemented so that individuals receive the greatest benefit from radiation sources at the lowest possible exposure rates. In addition to regulatory responsibilities, RPS health physicists respond to radiological emergencies throughout the state and sometimes beyond.

Response to Japanese disaster - During Japan's March 2011 Fukushima Daiichi nuclear power station release of radioactive material, RPS health physicists gathered and analyzed daily environmental samples to determine the impact to Oregon. The results were available for public viewing. They fielded inquiries from the public, spoke as Subject Matter Experts during media interviews and at state and regional emergency response situational meetings, and even briefed Oregon's U.S. Senators offices. Lessons learned from this event will be applied to future RPS emergency responses.

Do you have questions? Call CHP at 971-673-0490 or go visit www.healthoregon.org/rps or www.healthoregon.org/radiationmonitoring.

Winterizing Seasonal Swimming Pools and Spas

By John Mason, REHS

With a better understanding of the cold water chemistry of winterized pool and spa vessels, the REHS can offer strategies to operators for more efficient, safe and less costly operations. This article does not necessarily pertain to a situation that is inspected, but is intended to inform the inspector what to pass on to the operator.

In general, do not leave an in-ground plaster pool or spa empty for the winter, as hydrostatic pressure in the ground can damage or destroy it. It is best to leave water in the vessel, maintain some circulation and heating, and maintain balanced water with enough sanitizer to prevent algae growth. Maintaining balanced water will also protect the plaster from degradation.

In milder climates where freezing is not much of an issue, the entire system can be operated intermittently. Place the circulation system on a timer to operate for a couple of hours per day. Circulating unheated water through the entire system will generally keep the equipment reasonably free of problems, even during occasional freezing periods. If needed, the pool heater can be run intermittently to maintain the water above the freezing level. Maintain all normal levels of water quality including the water level, sanitizer, pH, total alkalinity, and calcium hardness levels. Once-per-month cleaning is recommended for optimum care, and uncovered vessels must be kept free of debris, such as leaves and other materials.



A winterized pool with winter cover attached to the deck.

In climates where freezing temperatures are normal, the vessel should be completely winterized by cleaning, treating the water and protecting the pool/spa and equipment from weather-related problems. This will include the installation of a winter cover that is usually bolted onto the deck and will preclude animals, leaves and debris from entering the vessel. Two options for water level are typical: A) Lower the pool water level to about 3-6 inches below the skimmers, blow out the skimmer lines and fill with a non-toxic antifreeze. B) Maintain normal water level and recirculate and heat the water more frequently to prevent freezing and breakage of these shallow lines.

The first job of winterizing the vessel is to thoroughly brush then vacuum the vessel to remove as much debris as possible. After this is done, install the pool cover as recommended. Chemically treat the water with sanitizer and algaecide. The cover should keep out most dirt, debris (and bathers), so there should be limited need for sanitizer and oxidation. Maintain 1-2 ppm free chlorine at all times. This will inhibit algae growth and make start-up in the spring much easier.



Severe failure of plaster and algae staining as a result of not maintaining water balance over the winter.

Balance the pH, calcium hardness, total alkalinity for the new water temperature. This treatment is important so that water will not become corrosive when the water temperature drops significantly. In general as water temperature drops, the vessel will need more calcium hardness to maintain balanced water. At a water temperature of 84°F you will have non-corrosive (balanced) water with a pH of 7.3, Total Alkalinity of 100 ppm and Calcium Hardness of 300 ppm. Those same chemical parameters at 50°F will have a Saturation Index that is corrosive at -0.4. To achieve balanced water at 50 °F the operator can continue with the above chemical levels but increase the Calcium Hardness to 800ppm to achieve balanced water of 0.0. Calcium Chloride (used to raise Calcium hardness) is significantly cheaper than the natural gas needed to maintain a pool water temperature of >80°F. Check/maintain chemical levels twice per month.

Remove ladders, diving boards, and handrails. Rinse with clear water. Store in a cool, dry place. Secure the pump room, especially from rodents that may be looking for a warm home for the winter. Turn off any

electrical breakers on equipment that should not or will not be used over the winter. Advising your operators on proper winter chemical balance will help protect the vessel and equipment from damage. By thoughtfully winterizing the facility, the start-up process should be simple and efficient in the spring.

For a more detailed winterizing check list, check your Certified Pool Operator manual or read the winterizing bulletin posted on the Deschutes County web site at www.deschutes.org/pools.

Tigard Boil Water Notice – Thanksgiving Surprise!

By Gregg Baird, REHS, Oregon Health Authority – Drinking Water Services (OHA-DWS)

As you may have heard, residents of Washington County served by the City of Tigard water system were notified the day before Thanksgiving to boil their water. The City of Tigard water system serves about 57,658 customers in Durham, King City, Bull Mountain (including unincorporated areas of Washington County), and about two-thirds of the City of Tigard itself.

Routine and repeat tests collected on Monday and Tuesday, November 19th & 20th, were positive for *E. coli* in the distribution system, which resulted in the requirement to boil on Wednesday, November 21st, the day before Thanksgiving. It is not known how the bacteria entered the water supply. Tigard crews began flushing the system on Wednesday and conducted follow-up sampling at the site of the original positives as well as at several sites throughout the entire distribution system. Those results all came back clean and the boil notice was lifted early on the morning of Thanksgiving Day.

Although the issuing of boil water notices is a routine activity of OHA-DWS, it is thankfully pretty rare for such a large water system with so many customers to need to do a boil. When it does happen, it requires careful coordination and constant communication between the state, county and water system. In this case, that included the OHA-DWS, OHA Food Safety, Washington County Environmental Health, the Department of Agriculture, City of Tigard, and emergency management personnel and public information officers from these organizations.

One important thing right off the bat in an event like this is to get details to the County and Ag about the water system service area so they can contact only those licensed food service facilities that are affected. It is also important to promptly notify other agencies that may be affected such as the OHA Food Safety folks who ended up fielding many Thanksgiving-related food safety questions such as, "if I've been brining my turkey, is it still ok to eat?" (Answer: yes, if you cook it to at least 165 degrees F; stuffing the turkey is not recommended).

Thanks to everyone who helped make the process go as smoothly as it could, and especially the Environmental Health Specialists who worked hard to make sure public health was protected during the busy holiday!

Boil Water Advisory, Oak Grove Water Company, Hood River Co.

By Ian Stromquist, REHS

On November 26th, 2012, Oak Grove Water Company collected five 'temporary routine' water test samples for microbiological contaminants. The results were published on Wednesday, November 28th, 2012 of which two were positive for E-Coli bacteria; all five were positive for 'total coliform' bacteria. A 'Tier 1' boil water advisory was immediately ordered.

Oak Grove Water Company is a small community water system located to the southwest of the City of Hood River serving approximately 120 connections, most of which are a mix of homes and orchards.

The source of the water system is an aging spring located along side a developed logging road. There is no treatment, filtration, disinfection or residual maintenance. The spring storage box is suspected as the source of contamination due to cracks in the concrete allowing access of water under the influence of the surface. See Figure I.

This history of this issue goes back several years. Starting in 2008, Hood River County began noticing that coliform bacteria, with fair regularity during the rainy-season, but not during the dry-season. As well, vegetative growth (unidentified) was observed and removed in October, 2005 & 2009.

The last water system survey occurred in July, 2010. Water of an unknown source was observed draining into the spring storage reservoir from the ceiling of the concrete structure; water infiltration equaled several gallons per minute. At that time, the leaks were listed as 'significant deficiencies' requiring correction; however, Hood River County Health Department had little evidence that the infiltrating water was necessarily contaminated. At that time, total coliform 'positive' water test results were sporadic and unverified as MCL violations.

Total Coliform positive tests continued at the beginning of the rainy season in 2010, but did not occur again until early 2012. MCL violations for total coliform continued in January (unsubstantiated due to chlorination), February and March. In April, 2012, Hood River County Health Department revisited the 'significant deficiency' cited in 2010 and ordered Oak Grove Water Company to resolve the construction deficiency (or at least have approved plans) by May, 2012. The goal was to ensure that the water system was repaired before significant autumn rains began.

Oak Grove Water Company began a pattern of waiting until the last day of the 30 day and 120 cycles (Ground Water Rule) before hand-delivering written correspondence. This pattern continued until October 2nd, 2012, when Hood River County Health Department threatened enforcement action if plans were not approved by November 2nd, 2012. Plans were submitted to the State DWP before the end of October; Plans were conditionally approved on November 6th, 2012. The operator promised that construction would be completed by mid-December (well into the rainy season).



Figure I

Photo by Ben McCarty, Hood River News, November 29, 2012

Rain began falling in September in the Hood River area this year. As expected, total coliform 'positive' test results were observed immediately most likely due to the fact that the operator had exposed the spring box (removing fill) to evaluate the construction deficiencies. As stated above, an MCL for E-Coli contamination was discovered in late November resulting in the boil water advisory.

Oak Grove Water Company's one part-time employee began writing a public notice on Wednesday using a template provided. The notice was not placed into the mail until late on Thursday afternoon. Meanwhile, Hood River County Health Department began an aggressive campaign to get the word out to local and regional media, the School District and the Oregon Department of Agriculture.

By the following week, we received complaints from Oak Grove Water Company consumers that they did not receive any notification from the system until Saturday when public notices arrived via regular mail. Hood River County Health Department had further difficulties communicating with the operator because all channels of communication were inundated with frustrated consumers and media inquires.

The moral of the story is: (1) do not rely on the operator to distribute public notifications; (2) do not let operators postpone dead-lines. Be firm when necessary; and (3) establish an alternative, and private, means of communicating with the operator so that your messages are not lost in the onslaught of community inquiries.

At present, the issue is not resolved. Oak Grove Water Company remains under a boil water advisory. Construction has begun; however, the boil water advisory will likely remain in place for weeks.

Ian Stromquist, REHS is an employee of Hood River County Health Department. His views are not necessarily those of his employer.

"Mystery Meat and the Health Inspector"

By Candace Cloud, REHS

One of the apocryphal stories told by the "old-timer" who trained me is epic tale... An animal—sometimes chicken, sometimes unidentified—was being slaughtered by the back door of the restaurant. The carcass

was brought into the kitchen, where a grandma or grandpa, sitting on the floor, chopped it into cooking portions using old country-style butchering methods.

No parsing of language in the Food Code to determine if there is a violation- Unapproved source! Unapproved processing! Potential and actual cross-contamination all over the kitchen!

My own story starts with a remark from a co-worker at a staff meeting about whether or not the goat meat being used to make birria is from an approved source. Birria is a spicy meat stew that originated in Jalisco, Mexico. It traditionally consists of goat meat, or sometimes lamb or mutton-- Not the species most commonly found in Oregon USDA-inspected slaughtering and/or processing facilities.

Later that week, I'm peering into a commissary freezer filled with bags of bones with meat on them. No labels, no stamps, no name or place of distribution. The operator informs me that he buys the meat from a warehouse distributor "by Portland." His wife has the receipt at the mobile unit. The boxes in which the meat was delivered have "been recycled."

The receipt at the mobile unit is from a warehouse licensed through Oregon Department of Agriculture. The file at ODA contains a statement in the approval that meat is procured from approved sources. In my research, I find articles about increased demand for goat meat in Oregon that can not be met by currently licensed processing operations in Oregon.¹

This increases my curiosity. I take the next step and call the warehouse distributor to find out where their meat is processed. I get a vague answer about a poultry processor in Washington (our neighbor to the north), and another food processing plant in Portland that is not known for being a meat processor. I call the Portland food processor's customer service department and am indignantly informed that they do not handle goat meat.

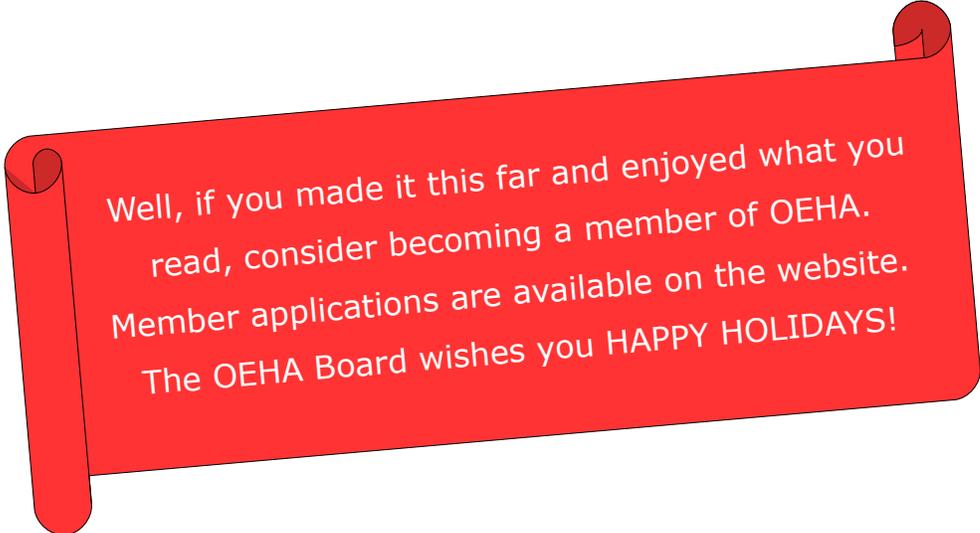
I confer with my co-workers and we decide to contact Darren Sisk at USDA. He attends a staff meeting to which other county EHS inspectors were invited. The meeting is mostly question-driven, and provided a lot of useful information. Included in the talk is a list of USDA-inspected meat processors in Oregon that are licensed to process and sell goat meat for wholesale. Mt. Angel Meat Co. in Mount Angel and Marks Meats, Inc. in Canby are two local suppliers.

Sometimes a simple question can lead to interagency cooperation at the local, state and federal level. Perhaps this information will help, if you are like me, not familiar with cuts of meat, USDA stamps, and what different species look like after they are processed.

I still don't know where the goat meat in the freezer was processed, but the operators will be careful to purchase from an approved source from this point forward.

Candace Cloud was employed at Marion County Environmental Health until December, 2012. She left for Albuquerque, NM, where she hopes to discover the secret to roasting chili peppers.

1. Electronic Report from APHIS: The Goat Industry: Structure, Concentration, Demand and Growth. United States Animal and Plant Health Inspection Service, Veterinary Services, Centers for Epidemiology and Animal Health, Center for Emerging Issues.
2. Goat from Farm to Table. USDA Food Safety Inspection Service, www.fsis.usda.gov.



Well, if you made it this far and enjoyed what you read, consider becoming a member of OEHA. Member applications are available on the website. The OEHA Board wishes you HAPPY HOLIDAYS!