

**City of Pine Island
Planning and Zoning Commission
Agenda**

Tuesday – March 12, 2013

7:00 PM

Second Floor – City Hall
250 South Main Street

- I. Roll Call
- II. Pledge of Allegiance.
- III. Minutes of October 9, 2012.
- IV. Public Hearing – Amending Section 10.33, of the Pine Island City Code – Allowing for Outdoor Wood-Burning Furnaces within the city limits of Pine Island
- V. Dale Allen Inquiry – Remove his land from Pine Island Future Land Use Map
- VI. Adjourn.

City of Pine Island
Planning and Zoning Commission
Minutes
Tuesday, October 9, 2012
7:00 PM – City Hall

Roll Call: Meeting called to order by Chairman Hames at 7:00 PM

Present: Roy Larson, T.J. Schutz, Grant Friese, Ken Hames and Harlan Pahl.

Absent: None.

Also present: Mr. & Mrs. Jim Miller, Neil Britton, Council Liaison Rod Steele, Geoff Griffin, Karen Doll, Megan Parks, Jerry Vettel and Abraham Algadi.

Minutes of June 12, 2012. Motion by Larson and second by Pahl. Approved 5-0-0.

Chairman Hames opened Public Hearing - Preliminary Plat - **Elk Run Bioscience Park Second**

Public hearing started by asking Geoff Griffin to present on the proposed plat. Geoff stated that the proposed Elk Run Bioscience Park Second plat will be designed to accommodate one large lot for a building that would eventually house 200,000 S.F. facility. The first building is expected to be a 50,000 S.F. and be home to a publicly traded Bio-Tech Company – The Company will then add new building in phases to max out at the 200,000 S.F.

Chairman Hames asked is there a product approved? Geoff said they are going through FDA approval right now and they are making progress on that front.

Steele asked about the status of Natural Gas service to the site. Algadi said that Minnesota Energy Resources can still provide interruptible service to the site in the immediate terms and this type of service would not impact the proposed company's needs. Geoff said that the City and Tower are working closely with MERC to address long terms natural gas needs for the overall development. MERC needs to increase their capacity in order to serve Pine Island and Oronoco in the long run.

Algadi said that the City of Pine Island is working with MERC on a new franchise agreement to address tariffs, and service provisions throughout the City.

Vettel: Asked about building schedule – Geoff stated that their Tower and the end user are looking to start construction in the spring of 2013.

Chairman Hames asked Geoff to go over list of staff comments on the preliminary plat. Geoff Griffin went over the comment list and agreed with comments and conditions listed including the need to enter into a development agreement on the plat, and the need to lower minimum distance between manholes to 350' from 500'

Parks: Asked about the status of the letter of intent between Tower and the end user. Geoff stated that the letter of intent was signed between the parties. However, moving forward with commercialization and construction is waiting for FDA approval which we hope to have soon.

Chairman Hames asked if there are additional public comments. Being that there were none, motion was made to close hearing by Friese and second by Larson. Approved 5-0-0.

Motion by Friese to approve, Preliminary Plat – Elk Run Bioscience Park Second with conditions outlined in attached exhibit "A", second by Schutz. Approved 5-0-0.

Motion to adjourn at 7:27 PM by Larson, second by Pahl. Approved 5-0-0.

Respectfully Submitted,
Abraham Algadi

Encl. Approval Condition Exhibit "A".

EXHIBIT "A"
Pine Island Planning & Zoning Commission
October 9th 2012
Preliminary Plat Approval Conditions for
Elk Run Bioscience Park Second

1. The maximum distance between manholes cannot be any more than 350'. The distance shown between MH 14 and MH 15 is 500'.
2. Provide a current Title commitment.
3. The certificate of survey does not reflect the parcel that is being platted.
4. Any easements of record cannot be verified because we do not have a Title commitment.
5. It would be easier to see if the outside boundary of the plat is darker.
6. Completion of a plat opinion by the City Attorney (to be prepared upon receipt of updated title evidence), and compliance with such opinion.
7. Certification that all property taxes and special assessments on parcels being platted have been paid in full.
8. Execution of a Subdivision Agreement requiring the applicant to complete at its expense all public utilities and improvements depicted in the preliminary plat of "Elk Run Bioscience Park Second."
9. Completion (*and receipt of a certificate of completion*) for all public utilities and improvements required by the Subdivision Agreement for "Elk Run Bioscience Park First," including Bioscience Drive SE.
10. Incorporation of dedicated utility and drainage easements along all lot lines, as directed by the City Engineer.
11. Rezoning of the newly created lot 1, block 1 from A-1 to I-1.
12. Compliance with the Master Development Agreement.
13. Compliance with the AUAR.
14. Plat to comply with street egress/ingress minimum standards. No access onto/from 520 Street.
15. Provide for adequate on site traffic circulation.
16. Manage on site storm water runoff.
17. Provide the required minimum number and placement of fire hydrants.
18. Provide additional water line to serve proposed building(s) fire fighting needs.

Agency Review:

Olmsted County: Input received "no comment"

MnDOT: Input received "no comment"

Pine Island Township: No comments received.

**PUBLIC HEARING NOTICE
CITY OF PINE ISLAND**

The Pine Island Planning and Zoning Commission will hold a public hearing on Tuesday, March 12, 2013, at 7:00 PM, in the council chambers, second floor city hall, 250 South Main Street, Pine Island, MN

The purpose of the hearing is to consider a request from Bess and Gary Quimby, 601 Second St SW, to amend Section 10.33, of the Pine Island City Code.

Allowing for Outdoor Wood-Burning Furnaces within the City of Pine Island

Anyone wishing to comment may do so at that time or in writing to the Deputy Clerk, 250 South Main Street, PO Box 1000, Pine Island, MN 55963

Cindy Oelkers
Deputy Clerk

subdivision, or a tract of land; or, (9) trespass upon the premises of another, and without claim of right refuse to depart therefrom on demand of the lawful possessor; or, (10) occupy or enter the dwelling of another, without claim of right, or consent of the owner, or the consent of one who has the right to give consent, except in an emergency situation; or, (11) enter the premises of another with intent to take or injure any fruit, fruit trees or vegetables growing thereon without the permission of the owner or occupant; or, (12) without the permission of the owner tamper with or get into or upon a motor vehicle, or ride in or upon such motor vehicle knowing it was taken and is being driven by another without the permission of the owner. (7-1-90)

SEC. 10.33. OUTDOOR WOOD-BURNING FURNACES. (Added, Ord. 94, Second Series, 12-16-08)

Subd. 1. Purpose. It is generally recognized that the types of fuel used, and the scale and duration of burning by outdoor wood burning furnaces, creates noxious and hazardous smoke, soot, fumes, odors and air pollution, can be detrimental to citizens' health, and can deprive neighboring residents of the enjoyment of their property or premises. It is the intention of the City of Pine Island to establish and impose a ban on the installation, construction, operation, use, and maintenance of outdoor wood burning furnaces within the limits of the City for the purpose of securing and promoting the public health, comfort, convenience, safety, and welfare of the City and its inhabitants.

Subd. 2. Outdoor Wood-Burning Furnace Defined. A fuel burning device designed to burn primarily wood by hand-firing that is not located inside structures ordinarily occupied by humans.

Subd. 3. Prohibition. No person shall install an outdoor wood-fired boiler as defined in this Section within the City of Pine Island.

Subd. 4. Enforcement/Penalty. Any person found violating this Section shall be guilty of a misdemeanor. The City's building official or police department may enforce the provisions of this Section.

(Sections 10.34 through 10.39, inclusive, reserved for future expansion.)

SEC. 10.40. RULES AND REGULATIONS GOVERNING PUBLIC PARKS.

Subd. 1. Adoption. The Council may by resolution adopt, and from time to time amend, rules and regulations governing public parks. It is unlawful to violate such rules and regulations as are conspicuously sign-posted in such parks.

Bess Quimby
Gary Quimby
601 Second Street SW
Pine Island, MN 55963
507-356-8841
507-356-8909

To the Pine Island City Council and Planning & Zoning Board,
We respectfully request that the city council consider amending the city ordinances to allow for applications requesting the installation of outdoor wood furnaces inside the city limits. We understand that all applications may be subject to review as to the suitability of the site and efficiency of the proposed furnace. In the event that an amendment is made to allow for an application to be submitted, we believe that we are prepared to make a legitimate presentation for your consideration.

Thank you & sincerely,

Bess Quimby

Bess Quimby

Gary Quimby

Mary D. Quimby DVM 2-18-13



Creating the Standard

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Insulated Chimney
The chimney is a certified factory-built chimney for wood burning appliances. Two 4-foot Class A chimney sections are standard.

Vent Cap
Design eliminates evaporation.

Urethane Foam Insulation
Insulation is sprayed on and forms a 100% airtight, waterproof seal around the water jacket.

High Capacity Water Jacket
Provides a proven balance between firebox volume and water capacity for optimum performance and safety.

Ripple Top Design
For increased heat transfer area and lower maintenance.

Large, Insulated Cast-Iron Door
Ergonomically designed with a large door for easy loading. Door is insulated for maximum efficiency. Door parts are powder coated for increased paint durability.

Automatic Draft Control
Thermostatically controls water temperature in system.

Ash Pan
3/8" thick, formed ash pan is durable and easy to clean.

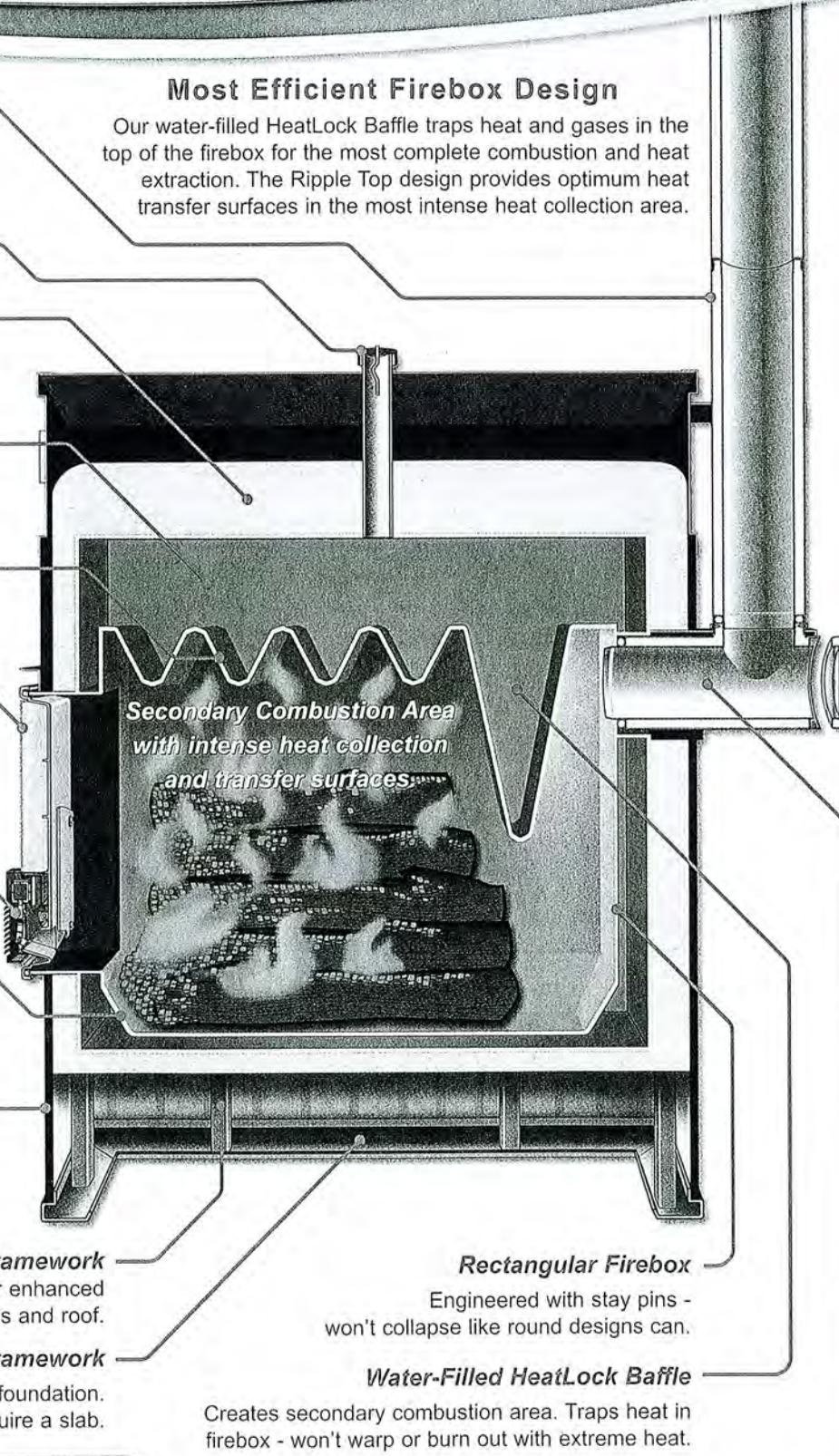
All-Weather Steel Siding
All siding is overlapped for tighter weather seal. All panels and corners are fastened with high quality coated screws for greater durability.

Welded Steel Framework
Heavy-gauge framework engineered for enhanced strength of side panels and roof.

Skid Base Framework
Makes installation easy with or without cement foundation. Only the CL 7260 and Pallet Burner require a slab.

Most Efficient Firebox Design

Our water-filled HeatLock Baffle traps heat and gases in the top of the firebox for the most complete combustion and heat extraction. The Ripple Top design provides optimum heat transfer surfaces in the most intense heat collection area.



Secondary Combustion Area with intense heat collection and transfer surfaces.

Rectangular Firebox

Engineered with stay pins - won't collapse like round designs can.

Water-Filled HeatLock Baffle

Creates secondary combustion area. Traps heat in firebox - won't warp or burn out with extreme heat.

Rear Exhaust Outlet

Eliminates leaks and corrosion that competitors experience from chimneys that exit through the roof. Designed for easy inspection. Reduces heat loss by over 50%.

Testimonial-

"We are very happy with our Central Boiler furnace. The wood and mess are all outside, also the house is very comfortable."

Bruce, Ontario

Why You Should Choose The Central Boiler Classic® Outdoor Wood Furnace

It's an alternative that eliminates the problems and increases the advantages of wood heat. It's a choice that can improve your family's living environment and standard of living while eliminating the fire hazards and time-consuming chore of tending a traditional wood stove.

The Central Boiler Classic outdoor wood furnace can heat 100% of your home and hot water. By virtually eliminating your heating costs, the Classic can often pay for itself in the first two years of use. Over a ten year period, a homeowner or business may save \$20,000 to \$100,000 or more in heating costs. And generally the Classic uses 25% to 70% less wood compared to traditional wood furnaces or other brands of outdoor wood furnaces.

The Classic saves you time and means less work because it burns larger pieces of wood. There's less splitting which significantly reduces the time you spend preparing the wood. The large firebox is designed for easy loading of wood and removal of ash.

The Classic is beneficial for the environment because burning wood is natural. Wood is a totally renewable resource and, when burned, results in no net increases in carbon dioxide. On the other hand, fossil fuels when burned, release carbon dioxide which would otherwise be trapped in the earth. The burning of fossil fuels causes a net increase in carbon dioxide which is believed to be responsible for the heat trapping greenhouse effect.

20502 160th Street • Greenbush, MN 56726
(800) 248-4681 or (218) 782-2575

CentralBoiler.com

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Consider location and direction smoke may travel with prevailing winds before installing your furnace.

Wood smoke can be a nuisance to others.
Some applications may not be appropriate.

Content of this brochure is information in possession of Central Boiler at the time of the design of this publication and may not represent what was previously manufactured. Product specifications and appearance subject to change.

Ask your dealer about Outdoor Furnace Best Burn Practices.

p/n 9000014



Qualified Individuals Working Together for a Common Purpose: A High Quality Finished Product

Central Boiler is located in Greenbush, Minnesota and was established in 1984 and is North America's largest manufacturer of quality outdoor wood furnaces. Based upon a desire to create safer and more efficient heating products, the company's innovations and patents have established Central Boiler as a leader in product quality. The uncompromising attitude to manufacture the best and always strive to make it better is at the core of the company's growth. Central Boiler has a dealer network that has now established itself throughout the United States and Canada.

Free 25 Year Limited Warranty

A free 25 year limited warranty is available on outdoor wood furnaces if registered at the time of purchase. Central Boiler leads the industry with its commitment to stand behind its outdoor wood furnaces. 25 year warranty not available on Pallet Burner model.

See Warranty Registration form for details.

Authorized Central Boiler Dealers located across the U.S. and Canada

When you're looking for a wood heating system for any need, your Central Boiler dealer is there to serve you. Your Central Boiler dealer can answer your questions, provide you with literature about the Classic outdoor wood furnace and help you choose the model right for your heating needs. To locate a Central Boiler dealer in your area, reference the dealer locator on the internet at CentralBoiler.com.

Using wood as a heating fuel is endorsed by the U.S. Forestry Service.

Your Authorized Central Boiler Dealer

Welch Wood Boilers
28675 155th Ave Way
Welch, MN 55089
Jim & Joanne Widman
651-380-6561

CentralBoiler.com

A Guide to Air Quality Regulations for Residential Biomass Combustion

Air Quality/#1.32 • August 2007

This fact sheet includes a check list of Minnesota rules and regulations for burning wood and agricultural derived fuels at residences, and suggestions for complying with them. All Minnesota rules can be accessed by number at <http://ros.leg.mn/revisor/pages/forms/getrule.php>.

Before Installing a Unit

Determine if any township, city, or county restrictions apply, including building codes, setback requirements, and fire codes. Some Minnesota cities have established restrictions on outdoor wood boilers.

Burn Fuels Specified by Manufacturer

Do not burn trash, including: food, plastics, chemicals, treated wood, treated seeds or other hazardous materials in your unit. Burning these items releases toxic chemicals and is a health and safety hazard when breathing the pollutants during stove operation or when handling the ash. Small onsite waste combustor units are banned in Minnesota (Minn. R. 7011.1220). For more information on burning garbage see www.pca.state.mn.us/oea/reduce/burnbarrel.cfm.

Operate Units Cleanly

The emissions from poorly designed or operated units often result in nuisance complaints and could exceed Minn. state visible emission restrictions as described in Minn. R. 7011.0105 for an existing unit and Minn. R. 7011.0110 for a new unit. These

rules limit the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For tips on burning cleanly and smoke related health concerns, see www.pca.state.mn.us/air/woodsmoke/index.html.



Replacing Wood Stoves

Consider replacing wood stoves built before 1990 with a newer stove that will reduce particle pollution and increase efficiency. Newer stoves are required to meet Environmental Protection Agency's (EPA) Standards of Performance for New Residential Wood Heaters Title 40, Part 60, subpart AAA (Minn. R. 7011.2950). For more information see www.epa.gov/woodstoves/.

Size, Site, and Install Units Appropriately

The stack of the unit should, at a minimum, be taller than the roofline of all nearby structures. Stacks that are too short do not allow the emissions to adequately disperse.

This is often the cause of nuisance complaints and may affect the health of you and your neighbors. Minn. R. 7011.0520 requires the owner or operator of any indirect heating equipment¹ (i.e. boiler) to install a stack of such height that pollutant concentrations at ground levels do not exceed any applicable ambient air quality standards. The National Ambient Air Quality Standard for particulate matter is of most concern and can be found at www.epa.gov/air/criteria.html. For more information on Minnesota ambient air rules, see Minn. rules chapter 7009.

Outdoor Wood Boilers

When they become available, consider outdoor wood boilers with EPA's orange tag – from the Outdoor Wood-fired Hydronic Heaters Program

(www.epa.gov/woodheaters/what_epa_doing.htm) or a unit certified to meet the NESCAUM model rule

(www.nescaum.org/topics/outdoor-hydronic-heaters).

This is particularly important in populated areas or near neighbors. The table below shows the certification levels for these programs meet Minnesota's emission limits for new and existing residential size indirect heating equipment.



For more information comparing green house gas emission of residential heating options, see Air Emissions from Residential Heating: The Wood Heating Option Put into Environmental Perspective at <http://oaspub.epa.gov/eims/eimsapi.dispdetail?deid=63619>.

Residents do not need to apply for a state air permit because Minn. R. 7007.1300 includes the following as insignificant activities:

1. residential activities with typical emissions from residential structures
2. the production of hot water for on-site personal use not related to any industrial use
3. recreational activities using fireplaces, barbecue pits and cookers and kerosene fuel use

For more information on air permits and requirements for businesses call the MPCA Customer Assistance Center 651-297-2274 (1-800-646-6247) or see www.pca.state.mn.us/air/permits/index.html or www.pca.state.mn.us/publications/aq4-03.pdf.

Notes:

1. 7011.0500 DEFINITIONS. Subp. 9. **Indirect heating equipment.** "Indirect heating equipment" means a furnace, boiler, or other unit of combustion equipment used in the process of burning fossil fuel² for the purpose of producing steam, hot water, hot air, or other hot liquid, gas, or solid, where the products of combustion do not have direct contact with the heated medium.
2. 7011.0500 DEFINITIONS. Subp. 7. **Fossil fuel.** "Fossil fuel" means natural gas, petroleum, coal, **wood**, peat, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.

Outdoor Wood Boiler Program	Particulate Matter Limit (lb/mmBtu heat input)	Reference
EPA Phase I OWHH Program	0.60	www.epa.gov/woodheaters/pdfs/Partnership_Agreement_3_16_07.pdf
NESCAUM Phase I model rule	0.44	NESCAUM Model Regulation for Outdoor Hydronic Heaters. January 29, 2007. www.nescaum.org/topics/outdoor-hydronic-heaters
MN standard of performance for new indirect heating equipment ¹ <250 million BTU/hr.	0.4	Minn. R. 7011.0515
MN standard of performance for existing indirect heating equipment ¹ <250 million BTU/hr.	0.4 in St. Paul, Minneapolis and Duluth	Minn. R. 7011.0510
	0.6 elsewhere in Minn.	

Outdoor Hydronic Heater Model Regulation

January 29, 2007

This document contains a model rule to assist state and local agencies in adopting requirements that will reduce air pollution from outdoor hydronic heaters (e.g., outdoor wood-fired boilers). It was developed in cooperation with a number of states and the U.S. Environmental Protection Agency (EPA).

The model regulation is intended to assist government agencies in enacting their own regulations, thus are advisory in nature. The purpose of the model rule is to promote cleaner outdoor units through common standards across the states that will protect air quality and public health while reducing the compliance burden on manufacturers, thus the emphasis on the critical elements listed below. By controlling air pollution from these currently unregulated sources, the model rule can also serve to level the playing field with previously regulated indoor residential wood burning devices.

Since 1988, the federal government has applied emission standards to most wood-fired residential heating devices under its Residential Wood Heater New Source Performance Standards. Outdoor wood-fired hydronic heaters, however, are not included in this regulation and do not have to comply with other boiler emission requirements. Therefore, unlike other solid fuel devices, these pollution sources have no federal regulatory emission standards. With an increase in their use and potential health impacts from their emissions, next door neighbors, local communities, and air quality agencies have a heightened concern about the current and future impacts of these devices.

The various provisions of this model rule are suggestions and examples. To ease the compliance burden on manufacturers, NESCAUM recommends that air quality agencies at a minimum adopt certain critical elements of the model rule. We highlight these elements in the model rule using italicized bold text. The critical elements include:

- Critical definitions
- Emission standards
- Test method procedures
- Certification process
- Labeling requirements

The model rule contains a single method for regulating new units with respect to the critical elements and contemplates that states may propose alternative approaches for other provisions.. It also provides alternatives for states to consider for regulating previously installed units. Items in regular font are recommendations that states should consider, however, given the wide variety of local concerns and varying statutory requirements, these sections should be tailored to meet individual states' needs.

Format of this Document: All **bracketed bold** sections require filling in a name, address, governmental body, date, or other information. While “[state]” is typically listed for filling in, this model rule can be adapted to local agencies that have authority to limit emissions from these sources. ***Italicized bold text*** identifies critical elements that are recommended for adoption by all regulatory agencies undertaking this effort. Footnotes contain explanations or identify issues associated with various aspects of the model rule.

Model Regulation for Outdoor Hydronic Heaters

1. Applicability

- A. This Regulation applies statewide.
- B. This Regulation applies, in its entirety, to any manufacturer, supplier, distributor or person intending to sell, lease, distribute, or market, an outdoor hydronic heater in [state] that meets the definition of an outdoor hydronic heater and to any person who installs, operates or owns an outdoor hydronic heater.

2. Definitions

- A. At Retail – “At Retail” means the sale by a commercial owner of an outdoor hydronic heater.
- B. *Clean wood* – “*Clean wood*” means wood that has no paint, stains, or other types of coatings, and wood that has not been treated with, including but not limited to copper chromium arsenate, creosote, or pentachlorophenol.
- C. *Commercial-size heater* – “*Commercial-size heater*” means a heater with a rated thermal output greater than 350,000 Btu/hr as rated by the test method identified in Section 7C of this Regulation.
- D. *Distribute or sell* – “*Distribute or sell*” means to distribute, sell, advertise for sale, offer for sale, lease, ship, deliver for shipment, release for shipment, or receive and (having so received) deliver or offer to deliver. This term does not include the distribution or sale by a manufacturer of an outdoor hydronic heater that is installed outside the State.
- E. Existing unit – “Existing unit” means an outdoor hydronic heater that is available for sale (or is installed and/or operational at the intended location of use) at retail, wholesale or in the open market as of the promulgation date of this Regulation.
- F. Heater Efficiency – “Heater efficiency” means the ratio of the delivered useful heat output measured by the test methods referenced in Section 7B of this Regulation to the calculated heat input of the heater.
- G. Installed Units – “Installed units” means any unit sold (or is installed and/or operational at the intended location of use) prior to the promulgation of this Regulation.
- H. Manufactured – “Manufactured” means built and operational, and subsequently ready for shipment (whether packaged or not).

I. Manufacturer – “Manufacturer” means any person who constructs or imports into the United States an outdoor hydronic heater.

J. Model line – “Model line” means all outdoor hydronic heaters offered for distribution or sale by a single manufacturer that are substantially similar in design and make as determined by the Department.

K. New model – “New model” means an outdoor hydronic heater of a new design including a new thermal output rating that is not available for sale at retail as of the promulgation date.

L. Nuisance – “Nuisance” means [insert state definition of nuisance].

M. Opacity – “Opacity” means the degree to which emissions other than water reduce the transmission of light and obscure the view of an object in the background.

N. Outdoor hydronic heater¹ – *“Outdoor hydronic heater” means a fuel burning device designed to (1) burn wood or other approved solid fuels; (2) that the manufacturer specifies for outdoor installation or installation in structures not normally occupied by humans (e.g., garages); and (3) heats building space and/or water via the distribution, typically through pipes, of a fluid heated in the device, typically water or a water/antifreeze mixture.*

O. Particulate matter or PM – “Particulate matter or PM” means total particulate matter including PM10 and PM2.5 (condensable and non-condensable fraction).

P. Residential-size heater – *“Residential-size heater” means a heater with a rated thermal output of 350,000 Btu/hr or less as rated by the test method identified in Section 7C of this Regulation.*

Q. Sale – “Sale” means the transfer of ownership or control.

R. Similar in all material respects – “Similar in all material respects” means that the construction materials, exhaust and inlet air system, and other design features are within the allowed tolerances for components identified in Section 6H of this Regulation.

S. Startup period – *“Startup period” means the time period beginning with flame stability after first charge of wood fuel and is no longer than a two hour duration. This definition only includes initial startup where no previous coal bed exists. This does not include refueling.*

¹ The critical element is the definition, not the term – therefore states can choose which term they prefer but all should use the same definition, which is purposely broad in its scope.

3. Prohibitions

A. Outdoor hydronic heaters that have not been certified, as set forth in Section 6, to meet the Phase I or Phase II emission standard, as set forth in Section 4 of this Regulation, and are purchased between the rule promulgation date and March 31, 2008 must be installed 500 feet or more² from a property line³ and must have a permanent stack extending five feet higher than the peak of any roof structure located within 150 feet of the outdoor hydronic heater.⁴

B. Effective March 31, 2008 no person shall:

1. Import, supply, distribute or sell, install or allow the installation of any outdoor hydronic heater subject to this Regulation unless it has been certified as set forth in Section 6 to meet the applicable emission limit set forth in Section 4A(1) or 4B(1) of this Regulation.

2. Outdoor hydronic heaters that meet the applicable 4A(1) or 4B(1) emissions standard but not the 4A(2) or 4B(2) requirements must also meet the following requirements: must be installed 500 feet or more⁵ from a property line and must have a permanent stack extending five feet higher than the peak of any roof structure located within 150 feet of the outdoor hydronic heater.

C. Effective March 31, 2010 no person shall:

1. Import, supply, distribute or sell, install or allow the installation of any outdoor hydronic heater subject to this Regulation unless the outdoor hydronic heater has been certified, as outlined in Section 6, to meet the applicable emission limit set forth in Section 4A(2) or Section 4B(2) of this Regulation.

2. **Siting requirements:**

a) **Units that meet the emission standard defined in Section 4A(2): No setback or stack height requirement.**

b) **Units that meet the emission standard defined in Section 4B(2): Outdoor hydronic heaters must be installed 300 feet or more from a property line and must have a permanent stack**

² Setback requirements are based on average background conditions of 15 µg/m³. States may need to adjust setbacks accordingly, either greater or lesser, based upon a region's background conditions for fine particulate matter.

³ States may choose to regulate setbacks based upon property lines or based upon the nearest building.

⁴ Setback and stack height requirements should also be codified in building codes.

⁵ Setback requirements are based on average background conditions of 15 µg/m³, states may need to adjust setbacks accordingly, either greater or lesser, based upon a region's background conditions for fine particulate matter.

extending five feet higher than the peak of any roof structure located within 150 feet of the outdoor hydronic heater.⁶

D. No person shall operate an outdoor hydronic heater from April 15 to September 30 unless the outdoor hydronic heater has been certified, as outlined in Section 6, to meet the emission limit set forth in Section 4A(2) or 4B(2) of this Regulation.

E. Prohibited fuels. No person shall burn any of the following items in an outdoor hydronic heater:

1. Any wood that does not meet the definition of clean wood;
2. garbage;
3. tires;
4. lawn clippings or yard waste;
5. materials containing plastic;
6. materials containing rubber;
7. waste petroleum products;
8. paints and paint thinners;
9. chemicals;
10. coal;
11. glossy or colored papers;
12. construction and demolition debris;
13. plywood;
14. particleboard;
15. salt water driftwood;
16. manure;
17. animal carcasses; and
18. asphalt products.

F. Outdoor hydronic heaters must comply with all applicable laws, including but not limited to local ordinances.

G. No person shall operate an outdoor hydronic heater in such a manner as to create a public or private nuisance. Local Boards of Health may enforce this provision according to their general authority to enforce nuisance conditions within the State Air Quality Regulations.

4. Particulate Matter Emission Standard for New Units

A. Residential Hydronic Heaters

⁶ Setback requirements are based on average background conditions of 15 $\mu\text{g}/\text{m}^3$. States may need to adjust setbacks accordingly, either greater or lesser, based upon a region's background conditions for fine particulate matter.

1. Phase I Emission Standard⁷ – No person shall distribute or sell, lease, import, or install an outdoor hydronic heater after March 31, 2008 unless it has been certified to meet a particulate matter emission limit of 0.44 pounds per million British thermal units (lb/MMBtu) heat input. In addition, units meeting the Phase I limit must be installed according to the setback and stack requirements, as defined in section 3B(2), and the seasonal operation limit, as defined in section 3D of this Regulation. Compliance with this particulate emission limit shall be determined in accordance with the test methods and procedures in Section 6 and 7 of this Regulation.

2. ***Phase II Emission Standard⁸ – No person shall distribute or sell, lease, import, or install an outdoor hydronic heater after March 31, 2010 unless it has been certified to meet a particulate matter emission limit of 0.32 lb/MMBtu heat output. In addition, within each of the burn rate categories, no individual test run shall exceed 18 grams per hour. Compliance with this particulate emission limit shall be determined in accordance with the test method and procedures in Section 6 and 7 of this Regulation.***

B. Commercial-size Hydronic Heaters

1. Phase I Emission Standard – No person shall distribute or sell, import, or install a commercially sized outdoor hydronic heater after March 31, 2008 that has not been tested to meet a particulate matter emission limit of 0.44 lb/MMBtu heat input. In addition, units meeting the Phase I limit must be installed according to setback and stack requirement, as defined in section 3B(2), and the seasonal operation limit, as defined in section 3D of this Regulation. Compliance with this particulate emission limit shall be determined in accordance with the test methods and procedures in Section 6 and Section 7 of this Regulation.

2. ***Phase II Emission Standard – No person shall distribute or sell, import, or install an outdoor hydronic heater after March 31, 2010 that has not been certified, as set forth in Section 6, to meet a particulate matter emission limit of 0.32 lb/MMBtu heat output. In addition, within each of the burn rate categories, no individual test run shall exceed 20 grams per hour. In addition, units meeting the commercial Phase II limit must be installed according to setback and stack requirements, as defined in section 3C(2). Compliance with this particulate emission limit shall be determined in accordance with the test method and procedures in Section 6 and 7 of this Regulation.***

⁷ The Phase I emission rate is based upon a technology transfer analysis. NESCAUM believes that there are several units currently on the market that can meet this standard.

⁸ The Phase II emission rate is based upon a technology forcing and public health impact analysis. NESCAUM believes that there is one unit currently available that can meet this standard.

C. Visible Emission Standard

1. No person shall cause or allow the emission of a smoke plume from any outdoor hydronic heater to exceed an average of 20 percent opacity for six consecutive minutes in any one-hour period.
2. Exception. Visible emissions may not exceed 40 percent opacity for 20 consecutive minutes during the startup period of a new fire. This only includes initial firing of the unit where no coal bed exists. This exception does not apply to refueling.

D. Installed Units⁹

1. Option A – Time Limit Removal Program. All installed and existing outdoor hydronic heaters within the State that do not meet the applicable emission limits defined in Section 4A(2) or 4B(2) shall be removed from all properties by [date] or rendered permanently inoperable by [date]. It shall be a violation of this section for any person on or after [date] to possess or operate an outdoor hydronic heater within [state] unless it is certified to meet the Phase II emission limits as defined in Section 4 of this Regulation, unless it has been rendered permanently inoperable.
2. Option B – Prior Sale or Transfer of Real Property. Prior to the completion or consummation of a sale or transfer of any real property on or after [date], all existing and/or installed outdoor hydronic heaters that do not meet the Phase II emission standard as defined in Section 4 of this Regulation shall be replaced, removed, or rendered permanently inoperable.
3. Option C – Setback and Stack Height Requirement for Installed Units. All existing and installed outdoor hydronic heaters that do not meet the Phase II emission standard as defined in Section 4 of this Regulation within the State shall either meet the Phase I setback and stack height requirements, as defined in Section 4A of this regulation, or be removed from all properties by [date] or rendered permanently inoperable by [date]. The outdoor hydronic heater must be installed 500 feet or more from a property line. The outdoor hydronic heater must have a permanent stack extending five feet higher than the peak of any roof structure located within 150 feet of the outdoor hydronic heater.

5. Fuel Requirements

⁹ The section for installed units is intended for states that wish to address units installed prior to rule promulgation. States may choose to implement one of the three options or combinations of options or defer to local governments to address existing outdoor hydronic heaters.

A. No person that operates an outdoor hydronic heater shall use a fuel other than the following:

- 1. Clean wood;**
- 2. Wood pellets made from clean wood;**
- 3. Home heating oil in compliance with the applicable sulfur content limit or natural gas may be used as starter fuels for dual-fired outdoor hydronic heaters; and**
- 4. Other fuels as approved by the Department.**

6. Certification¹⁰

A. Certification Requirement

- 1. No person shall supply, distribute, sell, lease, offer for sale, or allow the installation of an outdoor hydronic heater in [state] unless the Department, or equivalent authority approved by [state], has issued a certification to the manufacturer that the outdoor hydronic heater, or model line to which it belongs, complies with the particulate matter standard in Section 4 of this Regulation. A certification shall be valid for a period of five years unless revoked by the Department.**
- 2. Certifications for units that meet the Phase I emission limit but not the Phase II as defined in Section 4 of this Regulation will expire prior to the compliance date for Phase II as defined in Section 3C.**

B. Certification Procedure: For each model line, units must demonstrate compliance with the applicable emission standard, which may be determined based on testing of a representative number of units within a model line. In order for an outdoor hydronic heater or new model line to obtain a certification by the State, the manufacturer of any such heater shall conduct testing via EPA's Environmental Technology Verification Program and submit the results to the State for its review and approval, or via an alternative program approved by the State.¹¹

C. Issuance of Certification: The Department shall issue a certificate of compliance for a model line if it determines, based on the information submitted by the applicant and any other relevant information available to them, that:

- 1. A valid certification test has demonstrated that a representative unit of a model line complies with the applicable particulate matter emission limit**

¹⁰ States must adopt a certification program, however, states may revise this section as necessary.

¹¹ Appendix A contains a draft of a state certification program.

as defined in Section 4 of this Regulation. To be valid, a certification test must be:

- a) Announced in accordance with Section 7E of this Regulation;
- b) Conducted by an accredited testing facility in accordance with Section 6F of this Regulation;
- c) Conducted on a unit similar in all materials respects to other units of the model line to be certified; and
- d) Conducted in accordance with the test methods and procedures specified in Section 7B of this Regulation.

2. A statement shall be made by the manufacturer to the effect that any tolerances for materials or components listed in Section 6H of this Regulation that are different than those specified in the applicable model specifications may not reasonably be anticipated to cause units within the model line to exceed the applicable emission limit.

D. Denial of Certification – Upon denying a certification under this paragraph, the Department or its designee shall give written notice to the manufacturer setting forth the basis for its determination.

E. Quality Assurance Program – For each certified model line, the manufacturer or its designee shall conduct a quality assurance program that, at a minimum, includes the following requirements:

- 1. The manufacturer or authorized representative shall inspect one in every 150 units produced within a model line to determine that the units are within applicable tolerances for all components that affect emissions as listed in Section 6H of this Regulation.
- 2. The manufacturer or authorized representative shall conduct an emission test on a randomly selected unit produced within a model line on the following schedule:

If certification test results were:	If yearly production per model is:	
	<500 total production	=500 total production
70% or less of the PM emission standard	When directed by the State not to exceed one of every 1,000 units	Every 1,000 units or triennially (whichever is more frequent)
30% or less of the PM emission standard	Every 2,000 units	Every 2,000 units or annually (whichever is more frequent)

3. The emission test shall be conducted in conformity with Section 7B of this Regulation. The manufacturer shall notify the State by US mail that an emissions test required pursuant to this paragraph will be conducted within one week of mailing the notification.

4. If the manufacturer uses a different material for the firebox, firebox component, or hydronic heating mechanism than the one used for certification testing, the first test shall be performed before 500 units are produced. The manufacturer shall submit a report of the results of this emission test to the State within 45 days of completion of testing.

F. Approved Test Facilities – An accredited laboratory shall conduct all of the testing, test reporting, and product inspection requirements of this Regulation. Emission testing for certification shall be conducted by an independent contractor who has no conflict of interest or financial gain in the outcome of the testing.

G. Laboratory Accreditation Requirements – In order to qualify for accreditation under this Regulation, a test laboratory shall first be accredited:

1. by the U.S. Environmental Protection Agency (EPA) for testing wood-burning residential space heaters in accordance with 40 CFR Part 60, Subpart AAA, Section 60.535;

2. by the American National Standards Institute (ANSI) to the International Standards Organization (ISO) Standard ISO/IEC Guide 65 General Requirements for Bodies Operating Product Certification Systems; and

3. by a nationally recognized accreditation body to ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories.

4. The nationally recognized accrediting body itself shall be accredited to, and operate under ISO Guide 58 (Calibration and Testing Laboratory Accreditation Systems – General Requirements for Operation and Recognition), and

5. by a nationally recognized accreditation body to the American Society for Testing and Materials (ASTM) Standard Practice D7036-04; Competence of Air Emission Testing Bodies.

H. Laboratory Audits – Laboratory operations and recordkeeping audits by ANSI or another nationally recognized accrediting body shall be conducted at least annually and the audits shall be specific to the laboratory operations directly responsible for conducting the testing, certification, and inspection services

required by this Regulation. Results of the audit will be provided to [state] on March 1st of each year for its review.

I. Re-certification – The Department shall determine the frequency of certification testing of an outdoor hydronic heater or model line, with a minimum frequency of at least once in every five years of the outdoor hydronic heater or model line made available at retail.

J. Change in Design Parameter – A model line must be re-certified whenever any change is made in the design that is presumed to affect the particulate emission rate for that model line. Changes that are presumed to affect particulate emission rates for model lines include:

1. Tolerance changes: any change in the indicated tolerances of any of the following components is presumed to affect particulate emission rates if that change exceeds ± 0.64 cm ($\pm 1/4$ inch) for any linear dimension and ± 5 percent for any cross-sectional area relating to air introduction systems and catalyst bypass gaps unless other dimensions and cross-sectional areas are previously approved by the State;
2. Firebox: dimensions;
3. Air inductions systems: cross-sectional area of restrictive air inlets, outlets and location, and method of control;
4. Baffles: dimensions and location;
5. Refractory/insulation: dimensions and location;
6. Catalyst: dimensions and location;
7. Catalyst bypass mechanism: dimensions, cross-sectional area, and location;
8. Flue gas exit: dimension and location;
9. Door and catalyst bypass gaskets: dimension and fit;
10. Outer shielding and coverings: dimension and location;
11. Fuel feed system;
12. Forced air combustion system: location and horsepower of blower motors and fan blade size.

K. Material changes – Any change in the materials used for the following components is presumed to affect emissions:

1. refractory/insulation;
2. door and catalyst bypass gaskets;
3. for catalyst equipped units – change in catalyst make, model or composition;
4. heat exchanger;
5. heating fluids.

L. Revocation of certification – Certification of an outdoor hydronic heater may be revoked by the Department based on any of the following:

1. The outdoor hydronic heater does not meet the applicable particulate emission limit in Section 4 of this Regulation based on test data from retesting of the original unit used for certification testing;
2. A finding that the certification test was not valid;
3. A finding that the unit does not comply with the labeling requirements detailed in Section 9 of this Regulation;
4. Failure to comply with recordkeeping and reporting requirements detailed in Section 8 of this Regulation;
5. Physical examination showing that more than twenty percent of production units inspected are not similar in all material respects to the model used for certification testing;
6. Failure of the manufacturer to conduct a quality assurance program as detailed in Section 6E of this Regulation.

M. Outdoor hydronic heaters certified to meet the Phase I emission limit, as defined in Sections 4A(1) and 4B(1) of this Regulation, shall be automatically revoked effective March 31, 2010.

7. Testing Requirements

A. Test Facility

1. All emissions testing shall be conducted by an accredited, qualified, and independent testing consultant as defined in Section 6E who has no conflict of interest or financial gain in the outcome of the testing.

2. Manufacturers of the outdoor hydronic heaters shall not involve themselves in the conduct of any emissions testing under Section 7 of this Regulation nor the operation of the unit being tested, once actual sampling has begun.

B. Test Method – Emission tests shall be conducted using one of the following:

1. EPA Method 28 OWHH Test Method, or

2. An alternative method approved by the Department.

C. Btu Rating – Testing to determine MMBtu/hr shall be conducted according to the test method defined in Section 7B of this Regulation. This testing determines the categorization of an outdoor hydronic heater as a commercial or residential-sized unit.

D. Notice to State – The manufacturer of the outdoor hydronic heater shall provide notice to the Department at least 60 days prior to any emission test to allow the Department to have an opportunity to have an observer present during the conduction of the test. If requested by the State, the manufacturer shall pay all expenses to allow for the observation of the test by a State representative.

E. Test Protocols – If there is any deviation from the test method defined in Section 7B(1) of this Regulation, the manufacturer of the outdoor hydronic heater shall provide the Department with a test protocol for approval by the Department in accordance with the testing requirements in Section 7 of this Regulation 45 days prior to the emission testing for certification.

8. Notification by Manufacturers

A. By March 1st each year, and as outdoor hydronic heaters are certified, manufacturers shall provide the following information in writing to any person to whom the manufacturer has distributed or sold or intends to distribute or sell, or for installation:

1. A list of all models of outdoor hydronic heaters that it manufactures; and

2. A list of models that have received certification to meet the particulate matter emission standards and certification requirements set forth in Section 4A and 4B respectively.

B. By March 1st of each year, a copy of all written information necessary to demonstrate compliance of Section 4, Section 6, and Section 8 of this Regulation shall be submitted to the Department.

C. Within one month of promulgation of this Regulation, manufacturers and distributors of outdoor hydronic heaters shall notify all persons who purchase or plan to purchase an outdoor hydronic heater of the requirements in Section 3, Section 4, and Section 5 of this Regulation.

D. Manufacturers must notify owners of installed units of the requirements of this Regulation.

9. Labeling Requirements for Manufacturer

A. *Permanent label – Within three months of promulgation of this Regulation, any outdoor hydronic heater introduced into commerce into [state] shall meet the following label requirements:*

1. *Have a permanent label that shall:*

- a) *Be permanently affixed in a readily visible or accessible location;***
- b) *Be at least 3½ inches long by 3 inches wide;***
- c) *Be made of a material expected to last the lifetime of the unit;***
- d) *Present required information in a manner so that it is likely to remain legible for the lifetime of the unit;***
- e) *Be affixed in such a manner that it cannot be removed from the appliance without damage to the label.***
- f) *The permanent label may be combined with any other label, as long as the required information is displayed, and the integrity of the permanent label is not compromised.***

2. *The permanent label shall display the following information:*

- a) *Month and year of manufacture;***
- b) *Model number or name;***
- c) *Serial number;***

- d) Thermal output rating in MMBtu/hr;*
- e) Date of certification;*
- f) Results of emissions standard testing in grams per hour and lb/MMBtu input and output for respective Phase I and Phase II certification testing as defined in Section 4 of this Regulation.*

B. Required Labeling – each unit shall prominently display the following language on the outdoor hydronic heater:

1. Language stating, “It is unlawful to burn garbage, treated or painted wood, coal, tires, plastic and plastic products, rubber products, yard waste, lawn clippings, glossy or colored papers, construction and demolition debris, plywood, particleboard, salt water driftwood, manure, animal carcasses, asphalt products, waste petroleum products, paints, chemicals or any substance that normally emits dense smoke or obnoxious odors.”
2. For units equipped with catalytic combustors, the following statement shall appear on the permanent label: “This unit contains a catalytic combustor that needs periodic inspection and replacement for proper operation. Consult owner’s manual for further information. It is against the law to operate this unit in a manner inconsistent with operating instructions in the owner’s manual, or if the catalytic element is deactivated or removed.”

C. Temporary Labeling – All units shall have attached to them a temporary label that shall contain the following:

1. *A statement indicating the compliance status of the model;*
2. *A graphic representation of the composite particulate matter emission rate as determined in the certification test, or as determined by the State;*
3. *A graphic representation of the efficiency of the model;*
4. *A numerical expression of the heat output range in British thermal units per hour (Btu/hr) rounded to the nearest 100 Btu/hr;*
5. *Statements regarding the importance of proper operation and maintenance;*
6. *The manufacturer and identification of the model.*

7. *The temporary label shall:*

- a) *Not be combined with any other label or information;***
- b) *Be attached to the unit in such a manner that it can be easily removed by the consumer.***

D. *Owner's Manual – Each outdoor hydronic heater offered for sale or lease must be accompanied by an owner's manual that shall contain all the information listed below:*

- 1. *Proper thermal output capacity for matching with the building's thermal demands;***
- 2. *Proper installation information;***
- 3. *Operation and maintenance information;***
- 4. *Wood loading procedures, recommendations on wood selection, and warnings on improper fuels;***
- 5. *Fire starting procedures;***
- 6. *Proper use of air flow devices, if applicable;***
- 7. *Ash removal procedures;***
- 8. *For catalytic models, information pertaining to maintaining catalyst performance, maintenance procedures, procedures for determining catalyst failure or deterioration, procedures replacement, and information on warranty rights.***
- 9. *Persons operating this hydronic heater are responsible for operation of the hydronic heater so as not to cause a nuisance condition. Manufacturer guarantees, however, that proper operation of the outdoor hydronic heater in accordance with manufacturer's operating and maintenance procedures will not create a nuisance condition.***

10. Notice to Buyers

A. No outdoor hydronic heater subject to the requirements of this Regulation shall be offered, sold, offered for retail sale, or leased within the State unless prior to any sales or lease agreement, the seller or dealer provides the prospective buyer or lessee with a copy of the Department's Regulation and a written notice stating that:

1. It is unlawful to burn garbage, treated or painted wood, coal, plastic and plastic products, rubber products, yard waste, lawn clippings, glossy or colored papers, construction and demolition debris, plywood, particleboard, salt water driftwood, manure, animal carcasses, asphalt products, waste petroleum products, paints, chemicals or any substance that normally emits dense smoke or obnoxious odors;
2. Installation of an outdoor hydronic heater may be subject to other applicable State and local stack height and setback requirements;
3. Use of an outdoor hydronic heater that meets the distance and stack height requirements provided in Section 3 of this Regulation may not be adequate in some areas due to terrain that could render the operation of an outdoor hydronic heater to be a nuisance or public health hazard; and
4. Gives the specific results of the average and maximum emission rates of particulate matter for the outdoor hydronic heater in grams per hour per the testing conducted in Section 7 of this Regulation and the average delivered heating efficiency as found in the test reports that were used for certification of the units as detailed in Section 7 of this Regulation.

B. The written notice specified above shall be signed by the buyer or lessee at the time of purchase or lease to indicate receipt of notification of the requirements of this Section. Within seven days of making delivery of the outdoor hydronic heater into the possession of the buyer or lessee, the seller or dealer shall mail or otherwise provide a copy of the signed notice specified above to the Department. Said notice shall contain the name; address; telephone number of both the seller or dealer and the buyer or lessee; the location where the outdoor hydronic heater will be installed; and the make and model of the outdoor hydronic heater.

11. Nuisance Conditions

A. No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration that are injurious to human, plant or animal life or to property, or that unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, toxic, or deleterious emission, either alone or in combination with others.

Appendix A – State Certification Application information

1. State Certification Program: Manufacturers requesting certification shall submit an application to the State. An application shall consist of two complete copies of applications and attachments. The application must be signed by the manufacturer or an authorized representative, and shall contain the following:

- A.** The model name and/or design number.
- B.** Four color photographs of the tested unit, showing the front, back and both sides.
- C.** Engineering drawings and specifications of components that may affect emissions, including specifications for each component listed in Section 6H of this Regulation. Manufacturers may use complete assembly or design drawings that have been prepared for other purposes, but should designate on the drawings the dimensions of each component listed in Section 6H of this Regulation. Manufacturers shall identify tolerances of components of the tested unit listed in Section 6H of this Regulation that are different from those specified in that paragraph, and show that such tolerances may not reasonably be anticipated to cause outdoor hydronic heaters in the model line to exceed the applicable emission limit.
- D.** A statement whether the firebox or any firebox component will be composed of material different from the material used for the emission certification testing and description of any such differences.
- E.** For applications to certify a model line for use with catalytic devices, a statement describing the manufacturers program to ensure consistency in the size of any gap in the catalyst bypass mechanism.
- F.** A written report of the results of such tests, including a detailed description of the operating conditions of the heater during the tests, for review and approval by the Department or its designee, which shall include all documentation pertaining to a valid certification test, including the complete test report and, for all test runs, raw data sheets, laboratory technician notes, calculations, and test results. Documentation shall include the items specified in the applicable test methods.
- G.** For units using catalysts, a copy of the catalytic combustor warranty.
- H.** A statement that the manufacturer will conduct a quality assurance program for the model line that satisfies the requirements of Section 6E of this Regulation.
- I.** A statement describing how the tested unit was sealed by the laboratory after completion of the certification testing.

J. A statement that the manufacturer will notify the certified laboratory, if the application for certification is granted, within thirty days of notification from the State.

K. Statements that the outdoor hydronic heater offered for sale or lease will be:

1. Similar in all material respects to the unit submitted for certification testing, and
2. Will be labeled as defined in Section 9 of this Regulation.

L. A statement that the manufacturer will comply with the recordkeeping and reporting requirements detailed in Section 8 of this Regulation.

M. A written statement estimating the numbers of outdoor hydronic heaters that the manufacturer will produce in the first three production years.

N. A statement that the manufacturer has entered into a contract with an accredited laboratory as defined in Section 6F of this Regulation that will:

1. Conduct random compliance audit testing at no cost to the manufacturer, if the State selects that laboratory to conduct the test, or
2. Pay the manufacturer the reasonable cost of a random compliance audit test, if the State selects any other laboratory to conduct the test.

O. At the beginning of each test run in a certification test series, four photographs of the fuel load: one before and one after it is placed in the unit. One of the photographs shall show the front view of the load and the other shall show the side view.



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Outdoor wood-burners cause troubles with neighbors (11/06/2011)

By

As wintery winds conjure cold nights, wood burning appliances are breathing fire and sending heat into some area homes and businesses.

But while they may take the edge off the chill, they are also releasing small particles into the air, inciting neighborhood turmoil.

In rough economic times, going back to basics may seem like a solution for some, but burning wood carries potential health risks, especially if the home or business owner is not extremely careful.

The Minnesota Pollution Control Agency (MPCA) provided an informational presentation Wednesday evening inside Winona City Hall Council Chambers concerning the use of outside wood burning boilers or hydronic heaters. More than 25 people attended the meeting.

The main reason people use hydronic heaters is to obtain heat and hot water, according to MPCA Environmental Research Scientist Lisa Herschberger.

The devices heat water through a wood-fed fire in a small structure outside a home or building. The water is then pumped into the home or business and heat is obtained through radiators or flooring.

The majority of complaints they received were related to hydronic heaters, according to Herschberger.

Wood can smolder on and off throughout the day. "That puts out larger quantities of smoke," she said.

Units that do not have high smoke stacks or those that are burning items besides wood may increase health risks.

"They should be burning wood, not garbage or trash," Herschberger said.

Burning trash or chemically treated items like composition board and smoldering fires are illegal for most in Minnesota, according to Minnesota Statute 88.171.

Hazards

"It is not healthy to breathe wood smoke," Herschberger said.

Smoke contains several dangerous components, Herschberger explained, especially



Photo by Wendy Wilson

Minnesota Pollution Control Agency scientist Lisa Herschberger spoke to Winona area residents about the potential health consequences associated with using outside wood burning boilers or hydronic heaters, such as those that spread smoke over neighborhoods.

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particulate matter. These smaller particles travel deeper into the lungs.

"When you see haze, and it is not fog, that would be the fine particles when there is a lot of them," she said.

Short and long-term exposure to fine particles found in smoke can lead to detrimental respiratory and cardiovascular health effects and shortened life expectancy, according to Herschberger. And younger and older individuals may be more susceptible to these effects.

Smoke also contains dangerous gases including carbon monoxide, nitrogen dioxide and sulfur dioxide, in addition to air toxins like formaldehyde and benzene that cause many serious health consequences, according to Herschberger.

Increased smoke levels

Greater amounts of smoke are generated when combustion is inefficient or incomplete. Burning green wood also creates smoke which can cause dire health effects upon inhalation.

"It wastes the fuel and it produces lower combustion conditions," Herschberger said. "We want [the wood] to be very hollow."

Dispersion factors like wind and smokestack height also play a role in the level of human smoke exposure. Temperature, inversions as well as nearby trees and buildings can also keep smoke closer to the ground where people are located. For example, pollution stays closer to the ground on cold nights.

Herschberger showed a chart of the emissions coming from various sources. Emissions from a fireplace were 28 lbs/MBTUs.

"These emissions are off the chart," she said. "There are no controls on your fireplace."

Reducing exposure

"Currently there are no regulations from the EPA (Environmental Protection Agency) on outside wood burning boilers," Herschberger said.

However, the EPA has introduced a voluntary "white tag" or "phase 2" program for hydronic heaters that list qualified appliances offering emissions below a proscribed level. The heaters have emissions capped at .32 lbs/MMBTUs heat output with a maximum of 18 grams of particles per hour.

The EPA is currently working towards regulating hydronic heaters and offering a standard, possibly in 2013.

"They are going to try to get all models sold in the U. S. to comply," Herschberger said. "I hope that succeeds."

However, the regulations would likely not affect hydronic heaters currently being used.

"That is being handled at the local level," Herschberger said.

More than 23 cities in Minnesota have crafted ordinances to regulate the burners.

The MPCA recommends splitting, stacking, covering and storing wood to make sure it is very dry before it is burned.

"This can make a big difference to the amount of pollution," Herschberger said.

Having the wood in small pieces also helps it to burn more efficiently.

Their stories

Carol Jefferson, a retired Winona State University ecology professor, lives near a wood burner.

"I have had cancer," she said, explaining that numerous other people in the area of the wood burner also had suffered from cancer.

Jefferson described the reasons why she believed people continued to burn wood.

"It is a combination of ignorance and a failure of ethics," she said and suggested implementing county-wide regulations to control wood burning.

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"I do not know what you do about the guy that does not care – unless there is a law," she said.

A doctor in the audience urged, "Think about your neighborhood," he said. "There are times during the day I cannot even leave a window open."

Another woman stood before the group. She also lived near a property where wood was frequently burned, generating smoke. She had cancer and a lung nodule.

"I started to develop a lot of lung issues," she said. "Should [I] die because someone needs to have a cheaper way to heat their homes?"

Why people burn wood

"Wood is a natural resource," a man from the audience responded. "It is recyclable."

Another man shot back, "But your neighbors will die of lung cancer."

"I haven't had a heating bill for thirty years or more," the first man answered. "We get along with our neighbors."

Other individuals with wood burners cited the substantial cost savings associated with burning wood instead of using conventional heating methods like natural gas.

Local government

response

While the MPCA offered to assist cities in constructing ordinances to regulate outdoor burners, some local government officials had other thoughts.

"The EPA should regulate this," said Winona director of inspections Steve Carson.

City officials were aware of eight hydronic heaters in operation within Winona city limits.

In Winona, wood burners must use only clean, dry wood and must be at least 150 feet from property lines. Stacks must be at least 20 feet tall.

"We have great sympathy and empathy for the people who are suffering," said city council member George Borzyskowski.

The issues surrounding outdoor burner usage were complex, he explained, noting that some communities have banned them altogether.

For more information on burning wisely, see www.epa.gov/burnwise.

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RESOLUTION 13-001

A RESOLUTION SETTING LICENSES AND COMPENSATION FEES

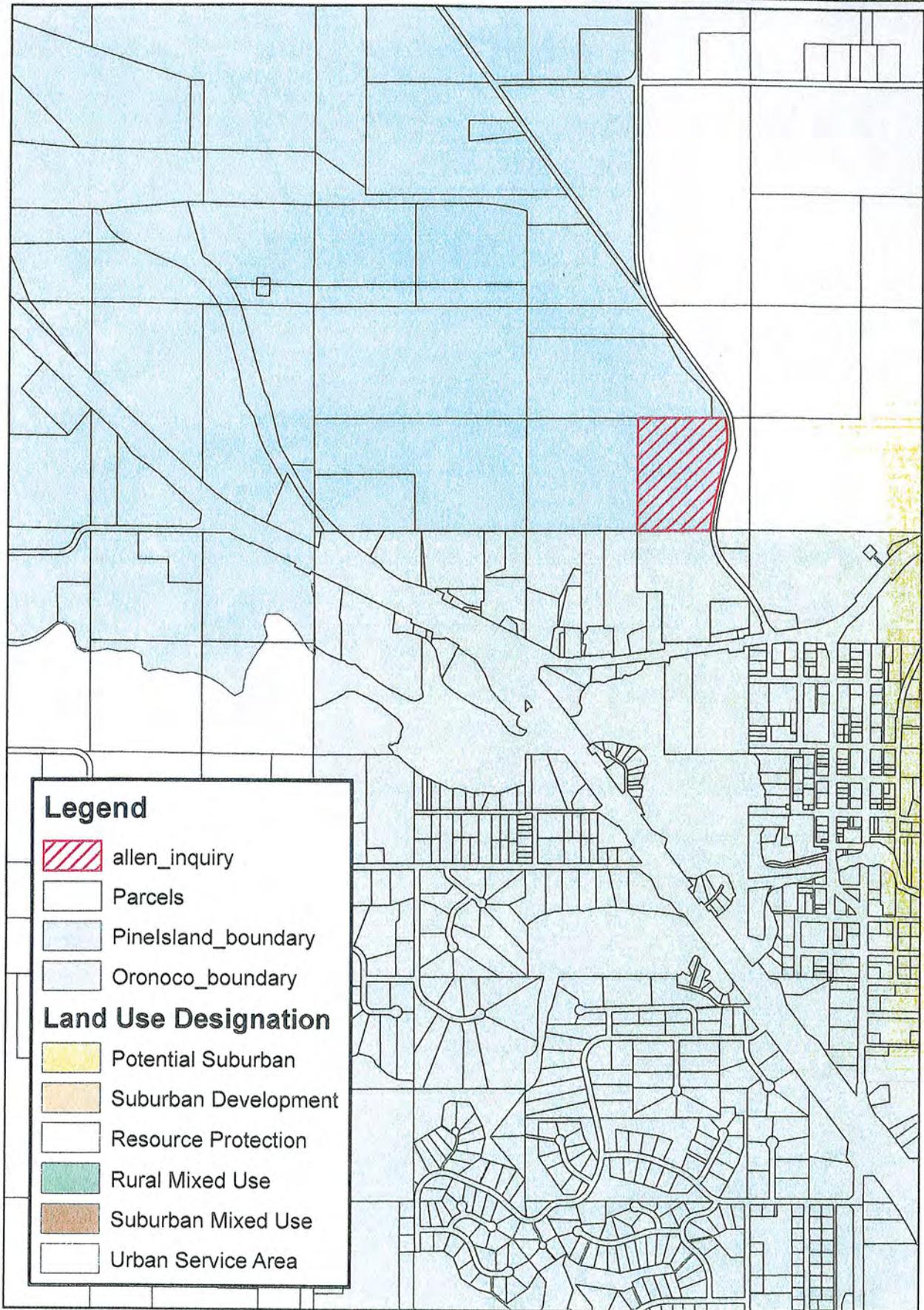
WHEREAS, Section 6.04 of the Pine Island City Code provides that license fees for licenses and compensation not specifically set by the Code, shall be fixed and determined by resolution of the City Council.

NOW, THEREFORE BE IT RESOLVED, that the following license fees and compensation shall be effective on or after January 15, 2013.

<u>License</u>	<u>Fee</u>
Cigarette	60.00
On-Sale 3.2 Beer	100.00
Special On-Sale 3.2 Beer	25.00 per event
Off-Sale 3.2 Beer	100.00
Amusement Machine	5.00 per machine
	25.00 maximum
Card Table	1.00 per table
Dance	250.00
Refuse Collector	1,500.00
Motorized Golf Cart	50.00
Peddlers and Solicitors	
Solicitor, per day	50.00*
per month	200.00*
six months	400.00**
twelve months	600.00
* Registered members of the Pine Island Farmers Market are exempt	
Animal Control	
Animal License, spayed/neutered	12.00
Animal License, not spayed/neutered	25.00
Penalty Late Application for License	10.00
Animal Pickup Fee	75.00
Animal Boarding	10.00 per day
City Council	
Special Meeting	600.00
Planning and Zoning	
Special & Conditional Use Permits, Variance Fee, & Interim Use Permit	400.00
Rezoning	400.00
Comp Plan Amendment Fee (Also See Rezoning Fee)	600.00
Sign Permit	75.00

Dale Allen Inquiry - 3/22/12

0 500 1,000 2,000 3,000 4,000 Feet



Olmsted County is not responsible for omissions or errors contained herein. If discrepancies are found within this map please notify the GIS Division at 507.328.7100, Rochester-Olmsted Planning Department, 2122 Campus Drive SE Rochester, MN 55904.

Figure 3 – Future Land Use

