



# Linn County Public Health Air Quality Division

## Air Quality Registration Permit for Residential Heaters

Permit No.	Project No.	Description	Date	Testing
				No

Plant Number: \_\_\_\_\_

\_\_\_\_\_  
Under the Direction of the Air Pollution Control Officer

Department Use Only

### Permit Holder

Contact Person:

\_\_\_\_\_ (name)  
\_\_\_\_\_ (title)  
\_\_\_\_\_ (street)  
\_\_\_\_\_ (city, state, zip)  
\_\_\_\_\_ (telephone)  
\_\_\_\_\_ (e-mail address)

### Permitted Equipment

Equipment Location: \_\_\_\_\_ (street)  
\_\_\_\_\_ (city, state, zip)

## TYPE OF EQUIPMENT BEING REGISTERED

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This registration is only applicable to a indirect-fired residential heater<sup>1</sup> located at a residence, unless otherwise exempted by the Linn County Code of Ordinances (LCCO) Section 10-58(k). The owner or operator is allowed to add, remove, and modify emission units, or change the operation at this source without modifying this permit as long as the source continues to meet the operating limits in Condition 4 of this registration permit. If any proposed change at this source would cause an exceedance of any operating limit in this registration, the owner or operator must first obtain the proper air quality construction permits.

<sup>1</sup> *Residential heater* means fuel-burning equipment used for the primary purpose of heating dwellings of four family units or less. Residential heater does not mean fuel-burning equipment used for the primary purpose of heating a commercial business (including, but not limited to, farming and ranching).

### Background & Instructions

On September 16, 2009, the Linn County Board of Supervisors approved revisions to the Linn County Code of Ordinances (LCCO) requiring owners or operators of indirect-fired residential heaters to submit a registration permit for these emission units. Completion of this form is intended to allow individuals to register each residential heater instead of obtaining a standard air construction permit while complying with the applicable requirements. An owner or operator planning to install, modify, or reconstruct a residential heater must submit a registration permit. Additionally, owners or operators of existing residential heaters must submit a registration permit, unless otherwise exempt or required. If you are unclear as to whether or not you qualify for this registration or if you must obtain a standard air construction permit, contact the Air Permitting Engineer at (319) 892-6000.

### This Registration **MUST** be Completed if **ANY** of the Following is True:

- A. The individual owner or operator is planning to install, modify, or reconstruct a residential heater after October 1, 2009; or
- B. The owner or operator has installed a residential heater on or before October 1, 2009.

If your residence meets the conditions above, complete this registration form and submit to:

Linn County Public Health  
1240 26<sup>th</sup> Avenue Court SW  
Cedar Rapids, IA 52404

Existing owners of residential heaters must submit a registration no later than March 1, 2010. Individuals proposing to install a residential heater after October 1, 2009, must do so prior to installation of the unit. Alternatively, owners or operators may apply for a standard air construction permit.

Retain a copy of the form for your records. The registration becomes effective upon Linn County's receipt of this signed registration.

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**REGISTRATION CERTIFICATION**

I certify that, based on information and belief formed after reasonable inquiry, the enclosed documents, including the attachments, are true, accurate, and complete and that legal entitlement to install and operate the equipment covered by the registration application and on the property identified in the permit application has been obtained.

I certify that this permit, as drafted, is for (and only for) an indirect-fired residential heater not otherwise "excluded" as noted above. I certify that there are no physical or chemical characteristics or pollutants in the air contaminants emitted for this equipment which are atypical of this type of equipment.

I certify that all other terms and conditions of this permit will be met beginning with the issuance date of the permit and at all times thereafter.

**I certify that the terms and conditions of this permit will be met at all times.**

\_\_\_\_\_ (Responsible Party – Signature)

\_\_\_\_\_ (Title) \_\_\_\_\_ (Date)

## REGISTRATION CONDITIONS

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### 1. Applicability Determination

The following questions are provided to determine whether this registration permit is applicable to your indirect-fired residential heater. Check the box next to the most appropriate answer for each question and follow the instructions to complete this form.

1. Is the heater used at a commercial business and/or used for a purpose other than heating a residence?
  - No. Go to Question 2.
  - Yes. Stop. A standard construction permit is required. The forms can be found at <http://www.linncleanair.org> or call (319) 892-6000 for assistance.
  
2. Does the heater combust any of the following fuels in exclusivity or combination: natural gas, liquefied petroleum gas, or fuel oil grade #1 or #2?
  - No. Go to Question 3.
  - Yes. Stop. This registration permit is not required.
  
3. Does the heater combust waste oil alone or in combination with any other fuel?
  - No. Go to Question 4.
  - Yes. Stop. A standard construction permit is required. The forms can be found at <http://www.linncleanair.org> or call (319) 892-6000 for assistance.
  
4. Was the heater installed prior to October 1, 2009, and is compliant with the 0.6 lb/MMBtu particulate matter (PM) emission standard (e.g., Phase 1 qualified unit) for indirect-fired fuel-burning equipment, as specified in LCCO Sec. 10-61(b)?
  - No. Go to Question 5.
  - Yes. Stop. This unit meets the Exemption for Residential Heaters Burning Solid Fuels. Read Condition 6 of this form and sign and date the Registration Certification and submit to the Linn County Public Health (LCPH) Air & Water Quality Branch (A&WQB). Submit a copy of documentation demonstrating the residential heater meets the 0.6 lb/MMBtu PM emission standard.
  
5. Was the heater installed prior to October 1, 2009, and is not compliant with the 0.6 lb/MMBtu PM emission standard (e.g., Phase 1 qualified unit) for indirect-fired fuel-burning equipment, as specified in LCCO Sec. 10-61(b)?
  - No. Go to Question 6.
  - Yes. Skip Question 6 and Question 7 and go to Question 8.
  
6. Was the heater modified or reconstructed<sup>1</sup> after October 1, 2009?
  - No. Go to Question 7.
  - Yes. Stop. Read Condition 6 of this form and sign and date the Registration Certification and submit to the LCPH A&WQB. A modified or reconstructed residential heater must meet the 0.6 lb/MMBtu PM emission standard for indirect-fired fuel-burning equipment, as specified in LCCO Sec. 10-61(b). Submit a copy of documentation demonstrating the residential heater meets the 0.6 lb/MMBtu PM emission standard.
  
7. Was the heater installed after October 1, 2009?
  - No. Go to Question 8.
  - Yes. Stop. Read Condition 6 of this form and sign and date the Registration Certification and submit to the LCPH A&WQB. All residential heaters installed after October 1, 2009, must meet the 0.6 lb/MMBtu PM emission standard for indirect-fired fuel-burning equipment, as specified in LCCO Sec. 10-61(b). Submit a copy of documentation demonstrating the residential heater meets the 0.6 lb/MMBtu PM emission standard.

<sup>1</sup> A modification is a physical or operational change that can increase the emission of a regulated air pollutant. Reconstruction is replacing the components on an existing residential heater and the cost of the replacement components exceeds 50% of the cost of a new residential heater. See 40 CFR §60.14 and §60.15 for complete definitions.

## 1. Applicability Determination (Continued)

8. Check the box identifying the location of the residential heater by the zoning designation, or is otherwise incorporated, of the residence identified in cover page of this form. To determine what the property zoning is, visit <http://linncounty-gis.maps.arcgis.com/home/>.
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| <input type="checkbox"/> Incorporated                    | <input type="checkbox"/> Rural Residential 3 (RR3) |
| <input type="checkbox"/> Urban Service Residential (USR) | <input type="checkbox"/> Village Residential (VR)  |
| <input type="checkbox"/> Rural Residential 1 (RR1)       | <input type="checkbox"/> Village Mixed-Use (VM)    |
| <input type="checkbox"/> Rural Residential 2 (RR2)       | <input type="checkbox"/> Agricultural (AG)         |
9. Did you check one of the following zoning designations in Question 8: Incorporated, USR, RR1, RR2, RR3, VR, or VM?
- No. Go to Question 10.
- Yes. Stop. Complete Condition 2, "Stack Heights and Setback Requirements of Residential Heaters," for Owners and Operators Incorporated, Zoned USR, RR1, RR2, RR3, VR, or VM.
10. Did you check the following designation in Question 8: AG?
- Yes. Stop. Complete Condition 2, "Stack Heights and Setback Requirements of Residential Heaters," for Owners and Operators Zoned AG.

## 2. Stack Heights and Setback Requirements of Residential Heaters

*For Owners and Operators Incorporated, Zoned USR, RR1, RR2, RR3, VR, or VM, check the box next to the most appropriate statement below.*

- The residential heater is no closer than 500 feet to the nearest occupied structure not served by the heater. There are no restrictions on stack heights for residential heaters 500 feet or more from the nearest occupied structure not served by the heater.
- The residential heater is within 500 feet of the nearest occupied structure not served by the heater. Check the box of the statement below best describing the residential heater exhaust stack.
- The permanent stack is currently fifteen (15) feet above ground level.
- The permanent stack will be extended to be fifteen (15) feet above ground level prior to October 1, 2012.



Read Condition 4, "Operating Requirements with Associated Monitoring and Recordkeeping" for Owners and Operators Incorporated, Zoned USR, RR1, RR2, RR3, VR, or VM; read Condition 5, "Nuisance Conditions;" Sign and date the Registration Certification; and submit this form to the LCPH A&WQB.

*For Owners and Operators Zoned AG, check the box next to the most appropriate statement below.*

- The residential heater is no closer than 500 feet to the nearest occupied structure not served by the heater. There are no restrictions on stack heights for residential heaters 500 feet or more from the nearest occupied structure not served by the heater.
- The residential heater is within 500 feet of the nearest occupied structure not served by the heater. Check the box of the statement below best describing the residential heater exhaust stack.
- The permanent stack is currently fifteen (15) feet above ground level.
- The permanent stack will be extended to be fifteen (15) feet above ground level prior to October 1, 2012.
- The residential heater is within 300 feet of the nearest occupied structure not served by the heater. Check the box of the statement below best describing the residential heater exhaust stack.
- The permanent stack is currently two (2) feet higher than the peak of any occupied structure located within 300 feet and not served by the heater, but not less than fifteen (15) feet above ground level and not greater than twenty-five (25) feet above ground level.
- The permanent stack will be extended to be two (2) feet higher than the peak of any roof structure within 300 feet and not served by the heater, but not less than fifteen (15) feet above ground level and not greater than twenty-five (25) feet above ground level, prior to October 1, 2012.



Read Condition 4, "Operating Requirements with Associated Monitoring and Recordkeeping" for Owners and Operators Zoned AG; read Condition 5, "Nuisance Conditions;" Sign and date the Registration Certification; and submit this form to the LCPH A&WQB.

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### 3. Federal Standards

A. New Source Performance Standards (NSPS):

This emission unit is not subject to any NSPS subparts at this time as there are no applicable subparts for its source category.

NOTE: The absence of the inclusion of any NSPS requirements as part of this permit does not relieve the owner or operator from any obligation to comply with all applicable NSPS conditions.

B. National Emission Standards for Hazardous Air Pollutants (NESHAP):

This emission unit is not subject to any NESHAP subparts at this time as there are no applicable subparts for its source category.

NOTE: The absence of the inclusion of any NESHAP requirements as part of this permit does not relieve the owner or operator from any obligation to comply with all applicable NESHAP conditions.

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### 4. Operating Requirements with Associated Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

*For Owners and Operators Incorporated, Zoned USR, RR1, RR2, RR3, VR, or VM:*

- A. The owner or operator shall not operate the residential heater during the period starting May 15 and ending September 15 of each calendar year.
- B. The owner or operator shall not combust more than 18,000 pounds (5 cords) of fuel per annual heating season in the residential heater.
- C. The owner or operator is limited to the following solid fuels in the residential heater:
  1. Untreated wood;
  2. Wood pellets made from untreated wood;
  3. Home heating oil in compliance with the applicable sulfur content limit, propane or natural gas may be used as start fuels for dual-fired residential heaters as specifically permitted by the manufacturer's instructions;
  4. Trees, tree trimmings, branches, and stumps as allowed pursuant to LCCO Sec. 10-63 (which does not include brush, weeds, leaves, grass, shrubbery, yard trimmings, or other landscape wastes); and
  5. Biomass, as defined in LCCO Sec. 10-55.



This concludes the Operating Requirements for Owners and Operators Incorporated, Zoned USR, RR1, RR2, RR3, VR, or VM.

*For Owners and Operators Zoned AG:*

- A. The owner or operator has no seasonal operating restrictions.
- B. The owner or operator shall not combust more than 54,000 pounds (15 cords) of fuel per annual heating season in the residential heater.
- C. The owner or operator is limited to burning the following solid fuels in the residential heater:
  1. Untreated wood;
  2. Wood pellets made from untreated wood;
  3. Home heating oil in compliance with the applicable sulfur content limit, propane or natural gas may be used as start fuels for dual-fired residential heaters as specifically permitted by the manufacturer's instructions;
  4. Trees, tree trimmings, branches, and stumps allowed pursuant to LCCO Sec. 10-63 (which does not include brush, weeds, leaves, grass, shrubbery, yard trimmings, or other landscape wastes); and
  5. Biomass, as defined in LCCO Sec. 10-55.



This concludes the Operating Requirements for Owners and Operators Zoned AG.

## **5. Nuisance Conditions**

Pursuant to LCCO Sec. 10-61(d), 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, 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.

If existing fuel-burning equipment is, through the course of a proper investigation by the Department, creating a verifiable nuisance, the following steps shall be taken by the owner at the direction of the Department:

1. Modifications made to the unit to eliminate the nuisance, such as extending the chimney, fuel management, or relocating the residential heater, or both.
  2. Cease and desist operating the unit until reasonable steps can be taken to ensure the residential heater will not be a nuisance.
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## **6. Transferability**

This registration permit is not transferrable from one location to another, from one piece of equipment to another, or from one owner to another, pursuant to LCCO Sec. 10-58(g)(1) and (2). In the event the residential heater is relocated, replaced, or purchased by a new owner, a new registration permit must be submitted pursuant to LCCO Sec. 10-58(a).

The owner or operator is allowed to add, remove, and modify emission units, or change the operation at this source without modifying this permit as long as the source continues to meet the operating limits in Condition 4 of this registration permit. If any proposed change at this source would cause an exceedance of any operating limit in this registration, the owner or operator must first obtain the proper air quality construction permits.

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**END OF REGISTRATION**