DEFINITION: Heating: A system consisting of a heat source and method of distribution designed to heat the surrounding air and area. Ventilation: A method of air distribution by air ducts to transfer air from one location to another. Air can be distributed passively or forced. Air Conditioning: A system consisting of a cooling source and method of distribution designed to cool the surrounding air and area.

PURPOSE: Provide thermal comfort and acceptable indoor air quality.

NAME VARIANTS: Air conditioner; A/C; Central air and heat; Chiller; Furnace; Window unit.

COMMON MATERIALS: Metal; Plastic.

COMMON COMPONENTS: Thermostat; Condenser; Furnace; Supply registers or vents; Ducts; Air handler; Radiant or convection heating covers; Boiler; Evaporative cooler; Thermocouple; Gas shutoff valve.

LOCATION: ☒ Unit Living room, bedroom, kitchen, bathroom, closet
☐ Inside Any indoor common area (e.g., hall, bath, kitchen, office, exercise room, etc.)
☐ Outside None

MORE INFORMATION: None.

DEFICIENCY 1: Heat source is missing
LOCATION: ☒ Unit

DEFICIENCY 2: Heating or air conditioning system or device is not operational
LOCATION: ☒ Unit ☒ Inside

DEFICIENCY 3: Heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent
LOCATION: ☒ Unit ☒ Inside
Deficiency I — Unit: Heat source is missing

Deficiency Criteria: No permanent (excluding portable) heating source is found within unit.

Health and Safety Determination: Life-Threatening

Correction Timeframe: 24 hours

- 24 hours correction timeframe: If outside temperature is below 50 degrees Fahrenheit and temperature inside unit is below 60 degrees Fahrenheit
- 30 day correction timeframe: If not the above scenario

HCV — Correction Timeframe: 24 hours

- 24 hours correction timeframe: If outside temperature is below 50 degrees Fahrenheit and temperature inside unit is below 60 degrees Fahrenheit
- 30 day correction timeframe: If not the above scenario

Rationale:

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<tr>
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<th>Explanation</th>
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</thead>
<tbody>
<tr>
<td>R1</td>
<td>Health</td>
<td>Direct</td>
<td>Condition could affect resident’s mental, or physical, or psychological state.</td>
<td>If heat source is missing, then resident may be exposed to dangerously cold temperatures.</td>
</tr>
<tr>
<td>R2</td>
<td>Safety</td>
<td>Direct</td>
<td>Resident could be injured because of this condition.</td>
<td>If heat source is missing, then there is an increased likelihood that tenant may try to provide heat via other unsafe means (e.g., space heaters, ovens, and open fires).</td>
</tr>
<tr>
<td>R6</td>
<td>Usability and Operability of Fixtures</td>
<td>Direct</td>
<td>Because of this condition, the resident is unable to use certain fixtures, features, or appliances, which are reasonably assumed to be part of their rent.</td>
<td>If heat source is missing, then resident is unable to utilize an appliance of their home that is expected to be provide and maintained as part of their rent.</td>
</tr>
<tr>
<td>M1</td>
<td>Corrective Maintenance</td>
<td>Direct</td>
<td>It is reasonable to expect a tenant to report this deficiency, and for facilities management to prioritize a work order response to fix that deficiency.</td>
<td>If heat source is missing, then it is likely the resident will report this, and the defect’s presence may indicate that complaint-based work orders are not being addressed.</td>
</tr>
<tr>
<td>M4</td>
<td>Capital Cost</td>
<td>Direct</td>
<td>This defect, on its own, is significant enough to be a capital cost to repair.</td>
<td>If heat source is missing, then the cost to install a heating source will likely be significant enough to incur capital cost.</td>
</tr>
</tbody>
</table>

Inspection Process:

Observation: - Verify a permanent heating source (e.g., a radiator, radiant baseboard, or access panel to a central air system) is provided and installed by the property.

Request for Help: - None

Action: - None

More Information: - None
TOOLS OR EQUIPMENT:

REQUIRED: - None

USEFUL: - None
Deficiency 2 — Unit: Heating or Air Conditioning System or Device is Not Operational

Deficiency Criteria: System or device does not turn on.
OR
Heating system or device produces only cold or room temperature air.
OR
Cooling system or device produces only hot or room temperature air.

Health and Safety Determination: Life-Threatening
This is a life-threatening issue requiring a 24-hour repair, correction, or act of abatement.

Correction Timeframe: 24 hours

HCV — Correction Timeframe: 24 hours

Rationale:

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<td>If heating or air conditioning system or device is not operational, then the repair costs will likely be significant enough to incur capital cost.</td>
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**Inspection Process:**

**Observation:**
- Look for heating or cooling system or device (e.g., a radiator, radiant baseboard, window unit, or access panel to a central air system) and determine if it is on.
- Listen to hear if the system or device powers on following request to POA.

**Request for Help:**
- If present and not on, ask POA to turn the system or device on.

**Action:**
- Place hand near system or device's heating or cooling element (or air vent if window unit or accesses a central air system) to feel for heated or cooled air.

**More Information:**
- None

**Tools or Equipment:**

**Required:**
- None

**Useful:**
- None
DEFICIENCY 2 — INSIDE: HEATING OR AIR CONDITIONING SYSTEM OR DEVICE IS NOT OPERATIONAL

DEFICIENCY CRITERIA:

System or device does not turn on.

OR

Heating system or device produces only cold or room temperature air.

OR

Cooling system or device produces only hot or room temperature air.

HEALTH AND SAFETY DETERMINATION: Life-Threatening

This is a life-threatening issue requiring a 24-hour repair, correction, or act of abatement.

CORRECTION TIMEFRAME: 24 hours

HCV — CORRECTION TIMEFRAME: 24 hours

RATIONAL:

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<td>Direct</td>
<td>Resident could be injured because of this condition.</td>
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INSPECTION PROCESS:

**Observation:**
- Look for heating or cooling system or device (e.g., a radiator, radiant baseboard, window unit, or access panel to a central air system) and determine if it is on.
- Listen to hear if the system or device powers on following request to POA.

**Request for Help:**
- If present and not on, ask POA to turn the system or device on.

**Action:**
- Place hand near system or device’s heating or cooling element (or air vent if window unit or accesses a central air system) to feel for heated or cooled air.

**More Information:**
- None

TOOLS OR EQUIPMENT:

**Required:**
- None

**Useful:**
- None
DEFICIENCY 3 — UNIT: HEATING SYSTEM OR DEVICE FUELED BY COMBUSTION HAS MISALIGNED, DISCONNECTED, DAMAGED, BLOCKED, OR MISSING EXHAUST VENT

DEFICIENCY CRITERIA: Exhaust vent is misaligned, blocked, disconnected, or improperly connected through to the ceiling or wall.

OR

Exhaust vent is damaged (i.e., visibly defective; impacts functionality).

OR

Exhaust vent is missing (i.e., evidence of prior installation, but now not present or is incomplete).

HEALTH AND SAFETY DETERMINATION: Life-Threatening This is a life-threatening issue requiring a 24-hour repair, correction, or act of abatement.

CORRECTION TIMEFRAME: 24 hours

HCV — CORRECTION TIMEFRAME: 24 hours

RATIONALE:

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<td>Health</td>
<td>Direct</td>
<td>Condition could affect resident’s mental, physical, or psychological state.</td>
<td>If heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent, then resident may be exposed to carbon monoxide leaks.</td>
</tr>
<tr>
<td>R2</td>
<td>Safety</td>
<td>Direct</td>
<td>Resident could be injured because of this condition.</td>
<td>If heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent, then resident could be exposed to carbon monoxide.</td>
</tr>
<tr>
<td>R7</td>
<td>Increased Monetary</td>
<td>Indirect</td>
<td>Resident would incur additional costs because of this condition.</td>
<td>If heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent, and resident is responsible for utilities, then they may incur additional costs due to inefficient heating system.</td>
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<tr>
<td>M3</td>
<td>Preventative Maintenance</td>
<td>Direct</td>
<td>This defect indicates that a property is not following preventative maintenance practices for the item or equipment.</td>
<td>If heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent, then it should be identified during preventative maintenance activities and the defect’s presence may indicate that self-generated work orders are not being addressed.</td>
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<td>M5</td>
<td>Increased Monetary</td>
<td>Direct</td>
<td>HUD would incur additional costs due to this condition.</td>
<td>If heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent.</td>
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U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
exhaust vent, and the property is responsible for utilities, then they may incur additional costs due to inefficient heating systems.

**Inspection Process:**

**Observation:**
- Look at system or device to confirm exhaust vent is:
  - Present;
  - Properly connected through to the ceiling or wall; and
  - Free of any holes or blockage due to bending, warping, collapse, or foreign material.
- Check for exhaust vent cap.
- Verify exhaust vent has no downward slope.

**Request for Help:**
- Ask the POA representative if the unit is heated by a fuel-fired device; if not, disregard this deficiency.
- If so, continue these steps.

**Action:**
- None

**More Information:**
- None

**Tools or Equipment:**

**Required:**
- None

**Useful:**
- None
DEFFICIENCY 3 — INSIDE: Heating system or device fueled by combustion has misaligned, disconnected, damaged, blocked, or missing exhaust vent

DEFFICIENCY CRITERIA: Exhaust vent is misaligned, blocked, disconnected, or improperly connected through to the ceiling or wall.

OR

Exhaust vent is damaged (i.e., visibly defective; impacts functionality).

OR

Exhaust vent is missing (i.e., evidence of prior installation, but now not present or is incomplete).

HEALTH AND SAFETY DETERMINATION: Life-Threatening This is a life-threatening issue requiring a 24-hour repair, correction, or act of abatement.

CORRECTION TIMEFRAME: 24 hours

R5 CORRECTION TIMEFRAME: 24 hours

RATIONALE:

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<td>M5</td>
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<td>Direct</td>
<td>HUD would incur additional costs due to this condition.</td>
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INVESTIGATION PROCESS:

OBSERVATION:  - Look at system or device to confirm exhaust vent is:
  - Present;
  - Properly connected through to the ceiling or wall; and
  - Free of any holes or blockage due to bending, warping, collapse, or foreign material.
  - Check for exhaust vent cap.
  - Verify exhaust vent has no downward slope.

REQUEST FOR HELP:  - Ask the POA representative if the unit is heated by a fuel-fired device; if not, disregard this deficiency.
  - If so, continue these steps.

ACTION:  - None

MORE INFORMATION:

TOOLS OR EQUIPMENT:

REQUIRED:  - None

USEFUL:  - None
### SUMMARY OF CHANGES

**Title:** Heating, Ventilation, and Air Conditioning (HVAC)  
**Version:** V1.3  
**Date Published:** 7/31/20

<table>
<thead>
<tr>
<th>Field</th>
<th>Change</th>
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<tbody>
<tr>
<td>Overall Formatting</td>
<td>Complete rework of document format and layout</td>
<td>V1.3</td>
<td>2020-07-31</td>
</tr>
<tr>
<td>Definition</td>
<td>Revised definition</td>
<td>V1.3</td>
<td>2020-07-31</td>
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<tr>
<td>Purpose</td>
<td>Field added</td>
<td>V1.3</td>
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<tr>
<td>Name Variants</td>
<td>Revised name variants</td>
<td>V1.3</td>
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<tr>
<td>Common Components</td>
<td>Revised common components</td>
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<tr>
<td>More Information</td>
<td>Field added</td>
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</tr>
<tr>
<td>Deficiency 1</td>
<td>Separated by inspectable location — Unit</td>
<td>V1.3</td>
<td>2020-07-31</td>
</tr>
<tr>
<td>Title</td>
<td>Added inspectable location</td>
<td></td>
<td></td>
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<tr>
<td>Deficiency Criteria</td>
<td>Revised deficiency criteria</td>
<td></td>
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<td>Revised to “Life-Threatening” determination; added standardized description</td>
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<td>Correction Timeframe</td>
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<td>Noted 24-hour correction timeframe if outside temperature is below 50 degrees Fahrenheit and temperature inside unit is below 60 degrees Fahrenheit.</td>
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<td>Tools or Equipment</td>
<td>Field added to deficiency; response revised</td>
<td></td>
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<td>Deficiency 2</td>
<td>Separated by inspectable locations — Unit and Inside</td>
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**Deficiency 3**  
**Title**  
Add inspectable locations

**Deficiency Criteria**  
Revised deficiency criteria

**Health and Safety Determination**  
Revised to “Life-Threatening” determination; added standardized description

**Correction Timeframe**  
Field added; response input as “24 hours”

**HCV — Correction Timeframe**  
Field added; response input as “24 hours”

**Rationale**  
Revised rationale categories, types, and explanations; added standardized codes and descriptions

**Inspection Process**  
Revised observation, request for help, action, and more information

**Tools or Equipment**  
Field added to deficiency; response revised

**Deficiency 4**  
**Removal**  
**V1.3**  
**2020-07-31**

**Deficiency 5**  
**Removal**  
**V1.3**  
**2020-07-31**