



State of Utah

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## GUIDELINES

**TO:** New Source Review and Compliance Sections

**FROM:** Regg Olsen *RDO 3/6/17*

**DATE:** March 6, 2017

**SUBJECT:** Source Category Exemption

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### 1. INTRODUCTION

The purpose of this guideline is to clarify the Source Category Exemptions rule in R307-401-10. This guideline clarifies the type of equipment covered under this rule and describes how to evaluate and document this equipment in the New Source Review (NSR) process.

Administrative Rule R307-401-10 reads as follows:

“The following source categories described in (1) through (5)\* below are exempted from the requirement to obtain an approval order. The general provisions in R307-401-4 shall apply to these sources.

- (1) Fuel-burning equipment in which combustion takes place at no greater pressure than one inch of mercury above ambient pressure with a rated capacity of less than five million BTU per hour using no other fuel than natural gas or LPG or other mixed gas that meets the standards of gas distributed by a utility in accordance with the rules of the Public Service Commission of the State of Utah, unless there are emissions other than combustion products.
- (2) Comfort heating equipment such as boilers, water heaters, air heaters and steam generators with a rated capacity of less than one million BTU per hour if fueled only by fuel oil numbers 1 - 6,

- (3) Emergency heating equipment, using coal or wood for fuel, with a rated capacity less than 50,000 BTU per hour.
- (4) Exhaust systems for controlling steam and heat that do not contain combustion products.”

\*Rule mistakenly refers to five categories in this paragraph, however, only four categories are listed in the rule.

## 2. EQUIPMENT DETAILS

There are four different types of equipment subject to this rule. The list below provides an overview of each type of equipment.

### R307-401-10 (1) - Fuel Burning Equipment

<b>Fuel</b>	a) Natural gas b) LPG c) Other mixed gas that meets the standards of gas distributed by a utility in accordance with the rules of the Public Service Commission
<b>Exempt Rating</b>	≤ 5 MMBtu/hr
<b>Purpose</b>	All purposes
<b>Example Equipment</b>	Furnaces, ovens, dryers
<b>Notes</b>	a) Not exempt if combustion takes place at a pressure greater than 1” Hg above ambient pressure. Combustion above this pressure is considered internal combustion. In other words, internal combustion equipment is not exempt under this rule (i.e. turbines). b) Not exempt if there are non-combustion related emissions. For example: furnaces used to dry paint. c) Dual fuel equipment is not exempt under this rule.

### R307-401-10 (2) - Comfort Heating

<b>Fuel</b>	Fuel Oil No. 1 - 6
<b>Exempt Rating</b>	≤ 1 MMBtu/hr
<b>Purpose</b>	Comfort Heating
<b>Example Equipment</b>	Boilers, water heaters, air heaters, and steam generators
<b>Notes</b>	Comfort heating equipment generally defined as heating units used for human comfort that do not provide heat for any manufacturing or industrial process.

### R307-401-10 (3) – Emergency Heating

<b>Fuel</b>	Coal or wood
<b>Exempt Rating</b>	≤ 50,000 Btu/hr
<b>Purpose</b>	Emergency Heating
<b>Example Equipment</b>	Boilers, water heaters, air heaters, and steam generators
<b>Notes</b>	a) Emergency heating not defined in state rules

	b) This type of equipment is very rare. It is usually be found in buildings that still use coal or wood-fired heating.
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**R307-401-10 (4) – Exhaust Systems**

<b>Fuel</b>	Not applicable
<b>Exempt Rating</b>	Not applicable
<b>Purpose</b>	Heat generation
<b>Example Equipment</b>	Radiant heating distribution systems (Boiler generating the heat may not be exempt, but the heat distribution system is exempt under this rule)
<b>Notes</b>	<ul style="list-style-type: none"> <li>a) No combustion emissions from the equipment in this category</li> <li>b) Unclear why this category was included in the rules since there are no emissions associated with this equipment</li> </ul>

**3. NSR PROCESS**

The guidelines below describe how to evaluate and document source category exempt equipment in the NSR process. The guidelines below are applicable to all equipment categories in this rule, except exhaust systems defined in R307-401-10(4). These systems have no emissions and do not impact the PTE, so they do not need to be considered in the NSR process.

1. The source’s PTE must include emissions from source category exempt equipment.
2. A BACT analysis is not required for exempt equipment. The permit engineer should include a comment in the BACT Analysis section of the Engineering Review to document this. For instance:

“Equipment is exempt from the requirement to obtain an approval order as per R307-401-10, so a BACT analysis is not required.”

3. Exempt equipment may be listed in Section II.A of the Approval Order (AO) for informational purposes. Equipment rating should not be included. Equipment may be grouped into one item in the equipment list. For instance:

**II.A.3      Boilers & Heaters**  
 Several boilers and heaters less than 5 MMBtu/hr  
 Fuel: Natural Gas

4. There should be no operational limits associated with exempt equipment, such as a limit on operational hours or fuel consumption.
5. The source is not required to modify their AO if they add or remove an exempt piece of equipment even if an existing approval order lists the rating of exempt equipment. For

instance, the existing AOs for oil and gas sites list the total rating of exempt natural gas-fired boilers and heaters at the site. These sources are not required to modify their AOs if they make changes to the exempt equipment, such as adding or replacing equipment, that result in a different onsite total.

6. If a source has several exempt pieces of equipment and no other emission sources, the source is exempt from obtaining an AO regardless of the number of exempt pieces of equipment or the PTE totals, unless it exceeds any major source thresholds.

**This guideline shall be audited every five years by the major NSR section manager to determine the current status and relevance of the information.**