ANSI/ASHRAE Addendum n to

Ventilation for
Acceptable Indoor
Air Quality

Approved by the ASHRAE Standards Committee on June 22, 2019; by the ASHRAE Board of Directors on June 26, 2019; and by the American National Standards Institute on July 24, 2019.

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Cognizant TC: 4.3, Ventilation Requirements and Infiltration
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FOREWORD

ASHRAE Standard 62.1 currently does not have ventilation air requirements for animal facilities such as animal shelters, veterinary offices, and veterinary hospitals. The 1973 edition of the standard provided values for these spaces, but these values were removed in the 1989 edition. Due to various contaminant sources present in these facilities, mainly animal waste decomposition that could result in ammonia generation, occupants working at or visiting these facilities may be subjected to harmful concentration of contaminants without proper ventilation. This addendum adds requirements for those spaces. Ammonia is added to compounds of common interest in a different addenda.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes.
Add the following rows to Table 6.2.2.1 as shown. The remainder of Table 6.2.2.1 is unchanged.

### TABLE 6.2.2.1 Minimum Ventilation Rates in Breathing Zone
(Table 6.2.2.1 shall be used in conjunction with the accompanying notes.)

<table>
<thead>
<tr>
<th>Occupancy Category</th>
<th>People Outdoor Air Rate $R_p$</th>
<th>Area Outdoor Air Rate $R_a$</th>
<th>Default Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>cfm/person</td>
<td>L/s·person</td>
<td>cfm/ft²</td>
</tr>
<tr>
<td>Animal Facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-animal-cage room (static cages)</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Small-animal-cage room (ventilated cages)</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Large-animal holding room</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal imaging (MRI/CT/PET)</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal operating rooms</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal postoperative recovery room</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal preparation rooms</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal surgery scrub</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Necropsy</td>
<td>10</td>
<td>5</td>
<td>0.18</td>
</tr>
<tr>
<td>Animal procedure room</td>
<td>10</td>
<td>5</td>
<td>0.12</td>
</tr>
<tr>
<td>Animal exam room (veterinary office)</td>
<td>10</td>
<td>5</td>
<td>0.12</td>
</tr>
</tbody>
</table>

Modify Table 6.5 as shown. The remainder of Table 6.5 is unchanged.

### TABLE 6.5 Minimum Exhaust Rates

<table>
<thead>
<tr>
<th>Occupancy Category</th>
<th>Exhaust Rate, cfm/unit</th>
<th>Exhaust Rate, cfm/ft²</th>
<th>Notes</th>
<th>Exhaust Rate, L/s·unit</th>
<th>Exhaust Rate, L/s·m²</th>
<th>Air Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal Facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-animal-cage room (static cages)</td>
<td>2.25</td>
<td>11.3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-animal-cage room (ventilated cages)</td>
<td>1.50</td>
<td>7.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large-animal holding room</td>
<td>2.25</td>
<td>11.3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal imaging (MRI/CT/PET)</td>
<td>0.90</td>
<td>4.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal operating rooms</td>
<td>3.00</td>
<td>15</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal postoperative recovery room</td>
<td>1.50</td>
<td>7.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal preparation rooms</td>
<td>1.50</td>
<td>7.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal surgery scrub</td>
<td>1.50</td>
<td>7.5</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Necropsy</td>
<td>2.25</td>
<td>11.3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal procedure room</td>
<td>2.25</td>
<td>11.3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[. . .</td>
<td>[. . .</td>
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<td>[. . .</td>
<td>[. . .</td>
</tr>
</tbody>
</table>
Add new Section 6.2.2.1.1.3 as shown.

6.2.2.1.1.3 Animal Facilities. Animal facilities that have completed a risk evaluation performed by the environmental health and safety professional responsible to the Owner or to the Owner’s designee are not required to comply with the rates in Table 6.2.2.1.
ASHRAE is concerned with the impact of its members’ activities on both the indoor and outdoor environment. ASHRAE’s members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE’s short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its Handbook, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system’s intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE’s primary concern for environmental impact will be at the site where equipment within ASHRAE’s scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.
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