



**BSR/ASHRAE Addendum f
to ANSI/ASHRAE Standard 147-2013**

Public Review Draft

**Proposed Addendum f to
Standard 147-2013, Reducing the
Release of Halogenated Refrigerants
from Refrigerating and Air-Conditioning
Equipment and Systems**

**First Public Review (October 2019)
(Draft shows Proposed Changes to Current Standard)**

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FOREWORD

This addendum makes changes to Section 4.1 and updates the Normative References.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum f to 147-2013

Change Section 4.1 as shown below.

4.1 Safety. All equipment and systems shall be designed in accordance with a recognized national standard, such as ANSI/ASHRAE Standard 15, Safety Standard for Refrigeration Systems,¹ UL 1995, UL60335-2-40, Household And Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, and UL60335-2-89, Household and Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor.

Update references as shown.

11. REFERENCES

1. ANSI/ASHRAE Standard 15-~~2010~~ 2019, *Safety Standard for Refrigeration Systems*. 2010. ASHRAE, Atlanta, Ga.
2. UL 1995 (~~3rd Edition, 2/18/05~~ 5th Edition, 7/31/15), *Heating and Cooling Equipment*. Underwriters Laboratories.
3. AHRI 580-~~2009~~ 2014, *Performance Rating of Non-Condensable Gas Purge Equipment for Use with Low Pressure Centrifugal Liquid Chillers*. Air-Conditioning, Heating and Refrigeration Institute, Arlington, Va.
4. ASTM D642-~~2000~~ 2015, *Standard Test Method for Determining Compressive Resistance of Shipping Containers, Components, and Unit Loads*. ASTM International, West Conshohocken, Pa.

5. ASTM D4577-~~2005~~ 2019, *Standard Test Method for Compression Resistance of a Container Under Constant Load*. West Conshohocken, Pa.
6. ASTM D999-~~2008 (RA-2008)~~ (R 2015), *Standard Test Methods for Vibration Testing of Shipping Containers*. West Conshohocken, Pa.
7. ASTM D4728-~~2006~~2017, *Standard Test Method for Random Vibration Testing of Shipping Containers*. West Conshohocken, Pa.
8. ASTM D6055-1996 ~~(RA-2007)~~ (R 2019) *Standard Test Methods for Mechanical Handling of Unitized Loads and Large Shipping Cases and Crates*. West Conshohocken, Pa.
9. ASTM D6179-2007 (R 2014), *Standard Test Methods for Rough Handling of Unitized Loads and Large Shipping Cases and Crates*. West Conshohocken, Pa.
10. ASTM D880-1992 ~~(RA-2008)~~ (R 2015), *Standard Test Method for Impact Testing for Shipping Containers and Systems*. West Conshohocken, Pa.
11. ASTM D5276-~~1998 (RA-2009)~~ 2019, *Standard Test Method for ~~Impact Drop Testing for Shipping Containers and Systems~~ of Loaded Containers by Free Fall*. West Conshohocken, Pa.
12. U.S. Code of Federal Regulations, 40 CFR, Part 82, Subpart F. *Protection of Stratospheric Ozone*.
13. ANSI/ACCA 4QM-2019, *Maintenance of Residential HVAC Systems*.
14. ANSI/ASHRAE/ACCA Standard 180-~~2008~~ 2018, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*. ASHRAE, Atlanta, Ga.
15. ~~DOT 39, Department of Transportation,~~ US Code of Federal Regulations, 49 CFR, Part 178, Subpart C. *Specifications for Packagings*.
16. AHRI Guideline K-~~2009~~ 2015, *Containers for Recovered Non-flammable Fluorocarbon Refrigerants*. Air-Conditioning, Heating, and Refrigeration Institute, Arlington, Va.
17. ANSI/ASHRAE Standard 34-~~2010~~ 2019, *Designation and Safety Classification of Refrigerants*. ASHRAE, Atlanta, Ga.
18. UL60335-2-40, Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, Underwriters Laboratories.
19. UL60335-2-89, Household and Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor, Underwriters Laboratories.