Welcome to the Southface Small Commercial Combustion Appliance Toolkit! The toolkit was developed by Southface through the Advanced Commercial Buildings Initiative in partnership with the U.S. Department of Energy. The toolkit is intended to be used by industry professionals to assess combustion appliances in small commercial buildings with respect to the building as a system, and to identify potential combustion safety hazards. The toolkit is not intended to replace any combustion equipment preventative service and maintenance procedures, but rather to add to the visual assessment of combustion equipment during building energy and water assessment walkthroughs.

Intended users of the toolkit include facility managers, engineers, HERS Raters and BPI Building Analysts, and other individuals with a foundation in building science, building-as-a-system evaluation, and basic engineering principles.

The toolkit contains a combustion assessment workbook and supplemental guidelines reviewing common combustion issues and solutions in small commercial facilities.

The **Small Commercial Combustion Appliance Assessment Workbook** provides detailed guidance for the assessor in each step of the combustion assessment process with a template for collecting site-visit and testing data. *The extent to which this workbook is used in the field and which tests are performed, is up to the discretion of the assessor*. The criteria used for compliance in the workbook is based on input from the ACCA/RESNET Standard 12, ANSI/BPI 1200-S-2015, National Fire Protection Agency 54/ANSI Z223.1, International Building Code, International Fuel Gas Code, and International Residential Code.

The **Small Commercial Building Assessment Combustion Appliance Guidelines** provide an overview of considerations related to combustion air with respect to building-as-a-system analysis, and best practice recommendations for combustion air supply and ventilation. The guidelines also review common types and categories of combustion appliances encountered in small commercial buildings, and provide numerous case studies of real-world combustion safety scenarios.

There are many resources available to further assist your combustion appliance assessment services. The appendix to this introduction contains a list of resources you may find useful.

We have intentionally kept all of the templates in simple formats so that you may customize them to meet your team’s needs. If you come across a protected sheet in the workbooks, simply click on the File tab and select “unprotect sheet” as no passwords are applied.

If you have any questions while using this toolkit, please contact us at 404-872-3549 or [info@southface.org](mailto:info@southface.org). To download other toolkits created through the ACBI program please visit [www.southface.org/ACBI](http://www.southface.org/ACBI).

Thank you for your contributions in advancing building efficiency in the small commercial market! Please provide us with your feedback regarding the toolkit at <http://www.surveygizmo.com/s3/2689567/ACBI-Toolkit-Feedback>.

Sincerely,

The ACBI Team at Southface

**Disclaimer**

Southface provides the Southface Small Commercial Combustion Appliance Toolkit (Toolkit) for voluntary use by industry professionals in compliance with all relevant safety and building requirements and standards.  Southface makes no warranties, expressed or implied, regarding the procedures and information contained in the Toolkit. Southface has no control over the implementation or modification of the Toolkit by users, provides no warranty, and assumes no liability or responsibility for any and all consequences of the implementation of the Toolkit.

# Appendix – Combustion Appliance Assessment Resources

Southface has found the following list of resources useful when conducting combustion appliance assessments. Southface is not responsible for any of the content contained in or created by these resources, and does not warranty the accuracy of the resources. This last was last updated in April 2016. If links do not work, Southface recommends searching the parent website for the tool or conducting a general internet search as websites often change.

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| **Type of Resource:** | **Resource Source:** | **Resource Location:** |
| Standards & procedures for ventilation and home energy topics. | ACCA/RESNET Standard 12 |  |
| Residential building performance standards. | ANSI/BPI (1200-S-2015) | http://www.bpi.org/files/pdf/ANSI%20BPI-1200-S-2015%20Standard%20Practice%20for%20Basic%20Analysis%20of%20Buildings.pdf |
| Safety requirements for fuel piping. | National Fire Protection Agency (NFPA 54, ANSI Z223.1) | http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=54 |
| Regulations for building systems. | International Building Code | http://publicecodes.cyberregs.com/icod/ibc/ |
| Regulations for fuel gas systems and gas-fired appliances. | International Fuel Gas Code | http://publicecodes.cyberregs.com/icod/ifgc/ |
| Regulations for one- and two-family dwellings. | International Residential Code | http://publicecodes.cyberregs.com/icod/irc/ |