Building Codes in Effect for South Carolina

Every city and county in South Carolina that does not legally "Opt out" of the Code Enforcement Program, must adopt and enforce the building codes required by law and authorized by the Building Codes Council. Local jurisdictions are restricted from promulgating their own building codes, in whole or in part or adopting building codes not authorized by the Council. All chapters (except the Administrative Chapter) of all codes must be adopted in their entirety. Administrative Chapters may be adopted as part of the code or adopted by local ordinance at the option of the local jurisdictions. Appendixes are not automatically adopted with the text of the code and must be adopted separately, by name, in the adopting ordinance.

Building Codes are required by law to be reviewed by the Building Codes Council before they may be adopted for use at the local level. The building codes that must be adopted and used in all jurisdictions in the State of South Carolina are listed below. Any other code or codes used to regulate the construction or alteration of buildings or structures, including their systems or components, not listed below are not valid and cannot be legally promulgated, adopted or enforced by a local jurisdiction.

On May 24, 2000, the Council updated the mandatory and permissive building codes for use within South Carolina. The Council established the implementation date for local jurisdictions as July 1, 2001 for all codes, with the exception of the International Residential Code. The implementation date established for the International Residential Code was July 1, 2002. All local jurisdictions must adopt and begin enforcement of the mandatory codes by their respective implementation dates and may adopt and enforce the permissive code at any time after the mandatory codes.

The International Code Series was developed as a joint project by the Southern Building Code Congress, International, the International Conference of Building Officials and the Building Officials and Code Administrators International and will replace the Standard, National and Uniform Building Code Series. The 1997 Editions of the Standard, National and Uniform Codes (which were regional), and the 1995 Edition of the CABO One and Two Family Dwelling Code (which was national) were the last to be published. The International Building Code Series will replace those documents as a single set of

National Codes. All codes training and Code Enforcement Officer certification examinations will be based in the International Code series.

The codes are to be used in conjunction with the code amendments authorized by the Building Codes Council and listed on this website. Only the amendments listed on this website are valid for use in the state. Building code amendments that have not received prior approved by the Building Codes Council are invalid and cannot be adopted, employed or enforced by local jurisdictions.

Mandatory Building Codes adopted for use in South Carolina and which must be adopted by local jurisdictions include:

- The 2000 Edition of the International Building Code.

- The 2000 Edition of the International Fire Code.

- The 2000 Edition of the International Plumbing Code.

- The 2000 Edition of the International Mechanical Code.

- The 2000 Edition of the International Fuel Gas Code.

- The 2000 Edition of the International Energy Conservation Code.

- The 2000 Edition of the International Residential Code.

- The 2002 Edition of the National Electrical Code to be adopted by local jurisdictions no later than July 1, 2003.

- The 1998 Edition of the ICC/ANSI A117.1, Accessible and Useable Buildings and Facilities, is adopted by the Accessibility Act and mandatory for use in all jurisdictions within the state (see NOTE 1 below).

- The Building Energy Efficiency Standards Act is adopted by statute and mandatory for use in all jurisdictions within the state.

In addition to the mandatory building codes, local jurisdictions may adopt:

- The 2000 Edition of the Property Maintenance Code.

NOTE 1 - Although other standards for building accessibility exist, the 1998 Edition of the ICC/ANSI A117.1, Accessible and Useable Buildings and Facilities, is the only accessibility document required by state law to be enforced by the local building officials. All plan reviews and inspections conducted by local Building Inspection Departments, therefore, will be based on ICC/ANSI A117.1. It is important to note, however, that other accessibility documents are also law and cannot be ignored. Legal action can be taken against a building owner, manager or any person involved in design or construction/renovation of a building or structure requiring accessibility, under one or more accessibility law. Before construction or renovation of a building or structure that requires accessibility, all applicable accessibility laws should be considered. Additional accessibility laws that must be considered and the enforcement entities include:

- The Americans With Disabilities Act (ADA), enforced by the US Department of Justice (DOJ);

- The Fair Housing Act Amendments of 1988, enforced by the US Department of Housing and Urban Development (HUD); and,

- The South Carolina Fair Housing Law, enforced by the SC Human Affairs Commission.

Order copies of the International Codes, the National Electrical Code or the ICC/ANSI A117.1 document.

South Carolina DOE Status of State Energy Codes

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State website(s):

South Carolina State Energy Office: http://www.state.sc.us/energy

Residential Code Status:

Mandatory National Code

Residential Code Selected:

2000 IECC

Notes on the State's Residential Code:

2000 IECC

Notice of Intent by the South Carolina Building Codes Council adopt the 2003 IRC and IECC. Accepting comments from interested parties through 12/1/03.

Can use REScheck to show compliance:

YES

http://bldgcode.pnl.gov/REScheckWeb/

State Certification Letter for residential code determination has been received:

YES

Commercial Code Status:

Mandatory National Code
Without Amendments

Commercial Code Selected:

ASHRAE 90.1-1989 (not IECC)

Notes on the State's Commercial Code:

ASHRAE/IESNA 90.1-1989

Notice of Intent by the South Carolina Building Codes Council adopt the 2003 IBC and IECC. Accepting comments from interested parties through 12/1/03.

Can use COMcheck to show compliance:

YES

State Certification Letter for commercial code determination has been received:

YES

Current Status Notes:

The South Carolina Energy Code is part of the State Building Code as outlined in Title 6, Chapter 9, of the SC Code of Laws. This mandates a statewide building code and energy code. Section 6-9-50, states that a residential building is considered in

compliance with the Building Envelope Requirements of the Model Energy Code, if (1) it is built in compliance with prescriptive standards issued by the South Carolina Residential Builders Commission, in consultation with the State Energy Office, based on computer models of the Model Energy Code including, but not limited to, options developed by Pacific Northwest National Laboratories for South Carolina's climatic zones, or, (2) if double pane or single pane with storm windows are used for window glass and in the case of ceilings, exterior walls, floors with crawl space, and heating and air conditioning duct work, the determination of the minimum thermal resistance ratings (R-value) is: (a) R-30 for ceilings, except for ceiling/roof combinations, which must be at least R-19; (b) R-13 for exterior walls; (c) R-19 for floors with crawl space; (d) R-6, or the installed equivalent, for heating and air conditioning duct work not located in conditioned space.

Adoption Process:
Adoption of changes is achieved by state legislation. Over 60% of the state's municipalities and counties have adopted the state building code. By the year 2001 the state of South Carolina will have an enforced building code in place.

Compliance Method:
In areas where local governments have adopted the code, compliance is determined by plan review and inspection by local building officials. For local government with no building official, the engineer or director of public works or chief fire inspector may be called upon to act as the enforcement agency. Some jurisdictions may accept a registered design professional's seal on a letter stating that the design conforms with the adopted code. Acceptance of such a letter is totally up to the local building official. Disputes between owners, builders, or design professionals and the local building official can be taken to the local Board of Appeals (BOA) for a hearing. Decisions made by the BOA are ethically binding on the participating parties. Details of this process are provided in Chapter 1 of the Standard Building Code.

Enforcement:
Local units of government enforce the code through the normal inspection process. Depending on the size of the local government unit, the same individual may be responsible for performing plan reviews and inspections.

Background/History:

The South Carolina Building Energy Efficiency Standard Act was first enacted in 1979. The Act referenced the Southern Building Code Congress, International (SBCCI) Standard Building Code for energy provisions. Over time, revisions were undertaken by the legislature.

The 1993 Building Energy Efficiency Standard Act, enacted by SB 1273, adopts Appendix E (at the time of passage) of the current version of the SBCCI Standard Building Code. The 1994 edition of the Standard Building Code requires compliance with the 1993 Council of American Building Officials (CABO) Model Energy Code (MEC), although ANSI/ASHRAE/IES 90A or 90B is adopted in the Standard Building Code as an option for one- and two-family dwellings and multi-family residential buildings not over three stories high. Alternative compliance criteria using a list of thermal envelope requirements is also provided for one- and two-family dwellings. ANSI/ASHRAE/IES Standard 90.1-1989, which is adopted by reference in the adopted 1993 MEC, is applicable to commercial buildings and residential buildings over three stories high.

A bill (S.66), filed in 1994 to require all municipalities and counties to adopt the most current building codes, passed the South Carolina State Senate in February 1996 and was sent to the Real Estate Subcommittee of the House Labor, Commerce and Industry Committee, where it was rejected. The bill called for the adoption and enforcement of the latest editions of the SBCCI Standard Codes and the MEC. Opposition was based on the need for local governments to raise taxes or fees to implement the codes. The state hoped to reintroduce the same bill after the November 1996 elections.

On February 18, 1997, HB 3175, requiring statewide use of the most up-to-date building codes, which would require adoption and enforcement of the 1995 MEC, passed the South Carolina House Committee on Labor, Commerce and Industry. A similar bill, Senate Bill 236, passed the Senate on February 19 and was referred to the House Labor, Commerce and Industry Committee. The bill requires that all municipalities and counties adopt and enforce the latest editions of the SBCCI Standard Codes and the MEC. The Governor signed a statewide building code bill in the summer of 1997.

Commercial Compliance FAQs

For commercial buildings, you can show compliance using a prescriptive approach, a trade-off approach, or a performance approach. Only one approach, is necessary to show compliance.

Q: What is a prescriptive approach?

For the building envelope, a prescriptive approach would list the minimum R-value or maximum U-factor requirements for each building component, such as windows, walls, and roofs. For lighting systems, a prescriptive approach would simply list the allowable watts per square foot for various building types. For mechanical systems and equipment, a prescriptive approach would list the minimum required equipment efficiencies. This approach is quick and easy to use, but you may find the approach somewhat restrictive because the requirements typically are based on worst-case assumptions and all requirements must be met exactly as specified.

See the COM*check-EZ*™ prescriptive packages for this approach.

Q: What is a trade-off approach?

A trade-off approach allows you to trade enhanced energy efficiency in one component against decreased energy efficiency in another component. These trade-offs typically occur within major building systems-envelope, lighting, or mechanical. You can, for example, trade decreased wall efficiency (lower R-value) for increased window efficiency (lower U-factor), or increase the roof insulation and reduce or eliminate slab-edge insulation. For lighting systems, the trade-off typically would occur between proposed lighting fixture wattages in various spaces within a building. The only trade-off allowed for mechanical systems and equipment is found in Chapter 8 of the IECC. You may trade off higher cooling equipment efficiency against a requirement for an economizer. The trade-off approach is less restrictive than the prescriptive approach because you describe the actual building design in the trade-off approach and may adjust individual component requirements.

The COM*check-EZ* software automates this approach.

Q: What is a performance approach?

A performance approach (also known as a systems performance approach) allows you to compare your proposed design with a baseline or reference design and demonstrate that the proposed design is at least as energy efficient as the baseline in terms of annual energy use. This approach allows great flexibility but requires considerably more effort. A performance approach is often necessary to obtain credit for special features, such as passive solar, photovoltaic cells, thermal energy storage, fuel cells, and other nontraditional building components. This approach requires an annual energy analysis for the proposed and the reference buildings.

The COM*check-Plus*™ software automates this approach.

Q: Which approach is best for a specific building?

The choice of approach depends on the complexity or uniqueness of the building, and the amount of time and money available for demonstrating compliance. The prescriptive approach allows quick review of the requirements. If these requirements are too restrictive, try a trade-off approach. For example, if the window area of a building exceeds that allowed by the prescriptive approach, a trade-off approach might work. If nontraditional components are involved or if energy use trade-off between building systems (e.g., envelope, mechanical) is desired, try the performance approach.

Q: Do the three approaches produce different results?

Yes, they can. Performance approaches require a higher degree of detail so that an individual building can be designed to exactly meet the IECC requirements. Prescriptive approaches tend to be somewhat conservative and use worst-case default assumptions so the prescriptive packages will apply to all buildings. Although the prescriptive approach may result in a more energy-efficient building because of its conservative assumptions, this situation is not always the case. The prescriptive approach generally does not account for many of the features that affect energy use, such as the effect window orientation and external shading may have on solar heat gain. Trade-off approaches fall somewhere between the prescriptive and performance approaches in flexibility and complexity.

Q: Why are there so many compliance methods?

The different methods reflect the differing influence of engineers and code officials. For example, Chapter 7 of the IECC reflects the engineering viewpoint by covering all possible situations and systems in a building. Chapter 8, originally developed for simple buildings and later enhanced for more complicated ones, reflects the need of code officials for a simple, easy-to-enforce set of requirements.

Q: Is it possible to use all these approaches in my state?

The 1998, 2000 and 2001 IECC, and the ASHRAE/IESNA Standard 90.1-1989/1999 contain requirements for all three approaches. If your state has adopted any of these three codes directly, you may be allowed to use all three compliance approaches. Check with your local jurisdiction to determine which approaches and compliance tools you can use.

Q: What compliance tools and materials are available for these approaches?

DOE provides a set of free [COM*check-EZ* products](#) that include paper-based prescriptive requirements and software-based trade-off requirements for the 1998, 2000 and 2001 IECC and ASHRAE/IESNA Standard 90.1-1989/1999. DOE also provides COM*check-Plus* that implements the performance approach for codes based on ASHRAE/IES Standard 90.1-1989. The ASHRAE Standard is used directly to demonstrate compliance with the prescriptive approach and includes the ENVSTD software to demonstrate the trade-off approach.

Q: What is the relationship between ASHRAE/IESNA Standard 90.1-1989/1999, the Model Energy Code, and the IECC?

Since the early 1970s, ASHRAE has developed standards for commercial building energy use. Model code organizations have incorporated these standards into the Model Energy Code (MEC) and the IECC. The MEC codes were developed and maintained by the Council of American Building Officials (CABO). With the advent of the International Code Council (ICC), the task of maintaining the MEC codes was passed to the ICC and resulted in the release of the two IECC codes. The first edition was released in 1998 and updated in 2000 and 2001.

Q: Where can I get the compliance materials discussed in this brochure?

You can download COM*check* compliance materials from
http://www.energycodes.gov/comcheck/index.stm.

Residential Compliance FAQs

Q: What is a prescriptive packages approach?

A prescriptive packages approach lists the minimum R-value or maximum U-factor requirements for each building component such as windows, walls, and roofs. This approach is quick and easy to use, but many users find it somewhat restrictive because the requirements typically are based on worst-case assumptions and all requirements must be met exactly as specified. By locating the correct climate zone and looking up the appropriate table of packages, you can verify that your project meets one of the packages listed for that climate zone.

See the RES*check* Prescriptive Package Generator for the web-based version of this approach.

See the RES*check*™ (formerly MEC*check*) prescriptive packages for the paper-based version of this approach. The Prescriptive Package Field Guides are another quick reference for this method of compliance.

Q: What is a trade-off approach?

A trade-off approach allows you to trade enhanced energy efficiency in one component against decreased energy efficiency in another component. You can, for example, trade decreased wall efficiency (lower R-value) for increased window efficiency (lower U-factor), or increase the roof insulation and reduce or eliminate slab-edge insulation. Typically, this method is less restrictive than prescriptive approaches because components that exceed the requirements can compensate for those that do not meet the code.

The RES*check* software simplifies energy code compliance by automating the trade-off calculations for this approach. RES*check* is now available in both a desktop and online version. The desktop version, simply called RES*check*, can be installed on both PC and Mac systems. The online version, RES*check-Web*, performs just like the desktop version but requires no download or installation. Projects can be saved online and accessed from anywhere.

☑ [Download REScheck Software](#)
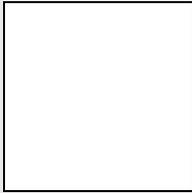
[Start REScheck-Web](#)

Q: What is a performance approach?

A performance approach (also known as a systems performance approach) allows you to compare your proposed design to a baseline or reference design and demonstrate that the proposed design is at least as efficient as the baseline in terms of annual energy use. This approach allows greater flexibility but requires considerably more effort. A performance approach is often necessary to obtain credit for special features, such as passive solar design, photo voltaic cells, thermal energy storage, and fuel cells. This approach requires an annual energy analysis for the proposed design and the reference design. **We do not offer residential software products at this time to comply using this approach**, but future versions of the REScheck software will include the DOE-2 energy analysis engine to perform the necessary calculations needed to determine compliance.

Q: Which approach is the best for a particular building?

Choosing the appropriate approach depends on the complexity and/or uniqueness of the building, and the amount of time and money available for demonstrating compliance. The prescriptive approach allows quick review of the requirements. If these requirements are too restrictive, try a trade-off approach. For example, if the window area of the building exceeds that allowed by the prescriptive approach, a trade-off approach might work. If nontraditional components are used or if energy use trade-off between building systems (e.g., envelope, mechanical) is desired, then use the performance approach.

Q: Do the three approaches provide different results?

Yes, they can. Performance approaches require a higher degree of detail so that an individual building can be designed to exactly meet the energy code requirements. Prescriptive approaches tend to be somewhat conservative and use worst-case default assumptions so the prescriptive packages are applicable to all buildings. Although the prescriptive approach may result in a more energy-efficient building because of its conservative assumptions, this result is not always the case. The prescriptive approach generally does not account for several features that affect energy use, such as the effect of window orientation and external shading on solar heat gain. Trade-off approaches fall somewhere between the prescriptive and performance approaches in both flexibility and complexity.

Q: Why are there so many compliance approaches?

Over the years, the code has grown to provide different approaches of varying simplicity and flexibility to meet user needs. The simpler approaches are less flexible but are generally easier to use. Some of the approaches have considerable overlap.

Q: Is it possible to use all these approaches in my state?

The Model Energy Code (MEC) (predecessor to the IECC) and the IECC contain requirements for all three approaches. If your state has adopted any versions of the MEC or IECC directly, you may be allowed to use all three compliance approaches. Check with your local jurisdiction to determine which approaches and compliance tools you can use.

Q: What compliance tools and materials are available for these approaches?

DOE provides free RES*check* compliance tools for the [trade-off approach](#) and the [prescriptive packages approach](#).

Q: Where can I get these products?

You can [download RES*check*](#) compliance materials from http://www.energycodes.gov/rescheck/index.stm.