

# DCA UPDATE

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Georgia Department of Community Affairs  
Construction Codes & Industrialized Buildings  
60 Executive Park South, N.E.  
Atlanta, GA 30329-2231  
404-679-3118  
www.dca.state.ga.us

## CODE EPISODE

### NEW ENERGY CODE AND ELECTRICAL CODE EFFECTIVE JANUARY 1, 2003

The Georgia Department of Community Affairs (DCA) Board, on the recommendation of the State Codes Advisory Committee (SCAC), has adopted the 2000 International Energy Conservation Code and the 2002 National Electrical Code. Both new code editions have Georgia amendments that are applicable statewide. In addition, DCA has adopted amendments to the 2000 Standard Plumbing Code (2000 International Plumbing Code), the 2000 Standard Gas Code (2000 International Fuel Gas Code), the 2000 CABO One and Two Family Dwelling Code (2000 International Residential Code) and the 2000

Standard Building Code (2000 International Building Code). The effective date for the new code editions and amendments is January 1, 2003.

Georgia has now fully updated the eight mandatory construction codes to the latest editions available. A complete list of the current Georgia State Minimum Standard Codes effective January 1, 2003 is available on the DCA web page. You may also download the amendments from the DCA website at [www.dca.state.ga.us](http://www.dca.state.ga.us). If you have a question please contact one of the DCA codes consultants: Bill Towson (404) 679-3104 or [btowson@dca.state.ga.us](mailto:btowson@dca.state.ga.us) and Mike Lindsey (404) 679-4845 or [mlindsey@dca.state.ga.us](mailto:mlindsey@dca.state.ga.us).

### CONSTRUCTION CODE STUDY COMMITTEE

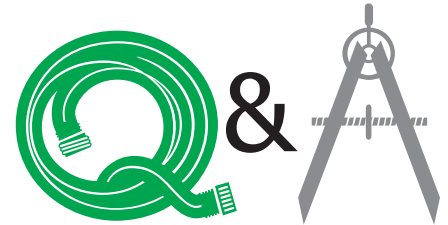
The Construction Code Study Committee authorized by House Resolution 1105 met at the Capitol on October 21. The first meeting was primarily organizational with various stakeholders discussing their concerns. The chairman summarized the discussion at the end of the meeting into three areas of concern: consistency in code interpretation, education and training for inspectors and a single state agency to administer codes. It is perceived that there will be four or five meetings needed before the year-end to complete the recommendations of the committee.

Co-Chairmen of the Committee are Senator Ed Harbison and Representative Johnny Floyd. The committee is comprised of a diverse group representing both the private and public sector. State Codes

Advisory Committee (SCAC) Chairman Windell Peters has been appointed by Lt. Governor Mark Taylor and SCAC member Morgan Wheeler has been appointed by Governor Roy Barnes. Also, Ted Miltiades is representing Commissioner Meadows on the committee. The next meeting is scheduled for November 13 at 1 p.m. in Room 450 at the Capitol.

### 2004 CODE CYCLE FOR PROPOSED AMENDMENTS

Any new proposed code amendment(s) to the Georgia State Minimum Standard Codes for Construction must be submitted to the Department not later than December 15, 2002 in order to be considered during the 2004 code amendment cycle. A copy of the code amendment form with instructions is available from the DCA website located at [www.dca.state.ga.us](http://www.dca.state.ga.us).



**Q:** Do all local governments enforce the Optional (Permissive) Codes?

**A:** No. The optional codes are not applicable in a jurisdiction until adopted by a municipality or county. The governing authority of any municipality or county in this state is authorized to adopt and enforce the optional codes. A copy of the local ordinance or resolution adopting any such code must be forwarded to the Department of Community Affairs (DCA) in order that such municipality or county may be apprised of subsequent amendments in the state minimum standard codes as adopted.

See related story on page 2.

## C O D Y S A Y S :

*Don't Forget! The NEW 2000 Georgia Energy Code and New 2002 National Electrical Code become LAW on January 1, 2003.*



## ENERGY CODE WORKSHOPS

The new edition of the Georgia Energy Code for Buildings becomes effective on January 1, 2003. It is imperative that building designers, general contractors, home builders and code enforcement officials are knowledgeable of the significant differences and changes. The adoption of the new Energy Code by the State of Georgia represents a significant step toward lowering total energy consumption, cleaning the air and addressing the many issues we now face. All new residential and commercial buildings and significant renovations will be required to comply with the new Energy Code.

### Atlanta - Central

Greater Atlanta Home Builders Association

- December 11, 2002 (Residential)
- January 9, 2003 (Residential)
- March 12, 2003 (Residential)

Southface Energy Institute

- February 20, 2003 (Code Officials)

### Atlanta - North/East

Southern Polytechnic University

- January 7, 2003 (Code Officials)
- January 8, 2003 (Commercial)

DeKalb Manuel Maloof Auditorium

- March 13, 2003 (Commercial)

### Augusta

Augusta Chamber of Commerce

- January 21, 2003 (Residential)
- January 22, 2003 (Commercial)

### Macon

Georgia Power Building

- January 15, 2003 (Residential)
- January 16, 2003 (Commercial)

### Savannah

Coastal Georgia Center

- February 27, 2003 (Residential)
- February 28, 2003 (Commercial)

### Columbus

Columbus Bank and Trust

- April 17, 2003 (Residential)
- April 18, 2003 (Commercial)

All workshops are scheduled from 8 a.m. - 5 p.m.

For more information contact Jessica Emmitt of Southface Energy Institute at (404) 872-3549 ext. 107 or email: [energycode@southface.org](mailto:energycode@southface.org).

Register online: [www.southface.org](http://www.southface.org)

### Residential Energy Code Workshops

- 2000 International Energy Conservation Code (IECC) with Georgia supplements and amendments
- Covers the new window and insulation compliance pathways

- Introduces MECcheck- a free software compliance tool

### Commercial Energy Code Workshops

- ASHRAE Standard 90.1-2001
- Covers lighting, envelope, HVAC, and water heating
- Incorporates alternate compliance paths-IECC and Georgia Single-Step
- Introduces COMcheck EZ- a free software compliance tool

### Building Code Officials Workshop

- Covers residential code (morning) and commercial code (afternoon)
- Demonstrates Energy Code compliance and enforcement methods

Code books: IECC-2000 and ASHRAE 90.1-2001

Attendees may purchase the reference code books at a discount price at the workshop.

Presented by Southface Energy Institute these workshops are led by Southface Energy Institute, a private, non-profit organization with a 24-year history of

providing research, education and technical assistance on energy efficient buildings. On the web at: [www.southface.org](http://www.southface.org).

## REVITALIZING NEIGHBORHOODS SEMINAR

The Georgia Department of Community Affairs (DCA) and the Georgia Municipal Association (GMA) held a one day seminar on Revitalizing Neighborhoods: Tools for Local Officials, in Macon on November 14. The seminar was a huge success and has prompted DCA and GMA to schedule an additional seminar on February 26 in Macon.

The seminar was developed in cooperation with the Building Officials Association of Georgia and the Georgia Association of Code Enforcement and the focus was to inform local governments on the tools available to revitalize their neighborhoods.

To register for the seminar you may download the information from the DCA website at [www.dca.state.ga.us](http://www.dca.state.ga.us). For questions about the seminar, contact Bill Thornton at 678-686-6230 or by email at [bthornton@gmanet.com](mailto:bthornton@gmanet.com) or Jane Massey at 770-631-9292 or by email at [jmassey@dca.state.ga.us](mailto:jmassey@dca.state.ga.us).

### CODE NOTE

Code officials should inform gas pipe installers not to remove the shutoff valve on the outlet side of the meter and do not break the seal on the meter in order to align the piping connection.

### PERMISSIVE (OPTIONAL) CODES TASK FORCE

The State Codes Advisory Committee (SCAC) at its October 24 meeting authorized the forming of a Task Force to study the permissive (optional) codes enumerated in the Official Code of Georgia Annotated (O.C.G.A.) Section 8-2-20.

The Task Force will be chaired by Mr. Bill Chambless, Jr., C.B.O., Director of the Macon-Bibb County Bureau of Inspections and vice-chaired by Mr. Gregori Anderson, C.B.O., Director of Inspections for the Chatham County Department of Building Safety and Regulatory Services.

Continued next page 

## MARK YOUR 2003 CALENDAR

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|--------------------|--|
| <b>January 8</b>   | Industrialized Buildings Rule Changes Public Hearing @ DCA |
| <b>January 16</b>  | Industrialized Buildings Advisory Committee Meeting @ DCA  |
| <b>January 30</b>  | State Codes Advisory Committee Meeting @ DCA               |
| <b>February 26</b> | Revitalizing Neighborhoods Seminar in Macon                |
| <b>April 24</b>    | State Codes Advisory Committee Meeting @ DCA               |
| <b>April 26-29</b> | BOAG Annual Conference in Atlanta/Gwinnett                 |



If you have any meetings that you would like to include in this newsletter, please contact the Construction Codes Section at 404-679-3118 or [ccombs@dca.state.ga.us](mailto:ccombs@dca.state.ga.us).

Task Force members will be comprised of representatives from various construction related sectors. The Home Builders Association of Georgia, General Contractors, Design Professionals, the Building Officials Association of Georgia and the Building Owners & Managers Association have all been asked to submit nominees. All of these groups will have a part in the review of the codes and will make recommendations regarding the adoption of any amendments to them.

The Task Force is authorized to meet as many times as necessary to complete the review process and must always keep in mind the Scope of the Task Force, which will be presented at the first meeting by the chairman of the SCAC.

When reviewing proposed amendments, the task force will consider several things, one of the most important being whether the amendment is necessary for the life, health, safety and well being of the Citizens of Georgia.

If you would like to be on the interested parties list or need additional information, please contact Mike Lindsey at (404) 679-4845 or [mlindsey@dca.state.ga.us](mailto:mlindsey@dca.state.ga.us).

**FLAMMABLE VAPOR IGNITION RESISTANT (FVIR) WATER HEATERS**

The purpose of this article is to make you aware of upcoming changes to residential gas-fired water heaters and the schedule for these changes. The changes apply to all residential gas-fired water heaters sold in the United States and certified to the ANSI Z21.10.1 (a) standard.

The water heater industry has been developing technology that will make gas-fired water heaters more resistant to accidents caused from the improper handling of flammable liquids such as gasoline. Consequently, gas-fired water heaters will require certification testing to the new FVIR standard.

Compliance and certification requirements to the new tests are based on the date of manufacture and will be implemented in 3 phases. The chart below outlines the size and timing schedule.

Phase	Gallon Capacity	Type	Manufacture Date
1	30, 40, & 50	Conventional	July 1, 2003
2	40 & 50	Power Vent	July 1, 2004
3	Remaining Products	Remaining Products	July 1, 2005

What does this mean? It means that water heaters manufactured after the above date will not be required to have their ignition source (pilot/flame) elevated 18 inches above the floor when installed in garages or other locations where flammable liquids may be present.

**PROFILE CORNER**

**YOU SHOULD KNOW HER BY NOW!**

**DCA COMMISSIONER LAURA MEADOWS**

It has been over a year now so you should know her, but just in case you don't, we will tell you about DCA Commissioner Laura Meadows. Last autumn, she was appointed Commissioner of the Georgia Department of Community Affairs. Before coming to DCA, Commissioner Meadows was the first Executive Director of the newly created One Georgia Authority. Prior to that, she served several years as the State Director of Rural Development for the United States Department of Agriculture. In addition, she was a member of the Governor's Rural Development Council.

Commissioner Meadows has been very busy this past year speaking throughout the state bringing the resources of DCA to the citizens of Georgia. Moreover, Commissioner Meadows has identified the core principles that guide the department and staff. They are bottoms-up approach to community and economic development, commitment to good government, communication and partnerships.

One of the many things she has done this year is to publish a semi-weekly Electronic DCA Newsletter intended to apprise local governments, officials and DCA employees about events occurring around the department. It has become a valuable communication tool keeping everyone informed on Housing Issues, Community Services, Environmental

News and Planning and Code matters, etc. If you would like to be on the DCA Electronic Newsletter distribution list, please contact Amy Hill at [ahill@dca.state.ga.us](mailto:ahill@dca.state.ga.us) and include your name, organization and email address. In addition, the Commissioner initiated a Community Service Policy for DCA employees. This was done to allow them to participate and volunteer in the communities where they live and work.

Finally, Commissioner Meadows said that she came to DCA probably knowing less about planning and codes than any other division but quickly had to learn. Whether it was window means of egress, arc-fault connectors or the solar heat gain coefficient for windows, the Commissioner was actively involved and engaged in code issues this past year.



*Commissioner Laura Meadows*

**EVALUATION REPORTS/APPROVED TESTING AGENCY**

It has been brought to the attention of the Department of Community Affairs (DCA) that some inspection departments will not allow the use of Corrugated Stainless Steel Tubing (CSST) unless the manufacturer or installer provides them with an evaluation report from SBCCI. The International Fuel Gas Code (Standard Gas Code) Section 403.5.4 Corrugated stainless steel tubing states "Corrugated stainless steel tubing shall be tested and listed in compliance with the construction, installation, and performance requirements of ANSI/AGA LC 1."

An evaluation report from SBCCI is not required when a product has been tested and listed by another approved testing agency, i.e., UL, CSA, NES and FM. Corrugated stainless steel tubing that has been tested and listed in compliance with the construction, installation and performance requirements of ANSI/AGA LC 1 is allowed for gas piping systems by the Georgia State Minimum Standard Gas Code.

This is not a formal interpretation but the opinion of the Department of Community Affairs. Under the Uniform Codes Act, final interpretation of the Georgia State Minimum Standard Codes for Construction lies with the local building official.



Revision of the Rules for Industrialized Buildings is proceeding toward final approval and implementation. The major revisions will require plans and manuals to be submitted in electronic form along with changes to adapt to the current

construction codes. A Public Hearing will be held on January 8, 2003 at 10 a.m. in the DCA Board Room for public input on the proposed revisions. It is expected that the revised Rules will be effective on April 1, 2003. A synopsis of changes may be obtained by e-mail from Jerry Hurd-Smith at [jhurdsmi@dca.state.ga.us](mailto:jhurdsmi@dca.state.ga.us) or by calling 404-679-3118. Also, the Industrialized Buildings Advisory Committee will hold its semi-annual meeting on January 16, 2003 at 11 a.m. in the DCA Board Room.

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## **CHANGES IN THE NEW 2000 INTERNATIONAL ENERGY CONSERVATION CODE**

### **What is the new Residential Energy Code?**

The new residential Energy Code is the International Energy Conservation Code (IECC), 2000 Edition, with Georgia State Supplements and Amendments. Much like the current energy code (based on 1995 MEC), the new code offers Chapters 4, 5, and 6 as compliance options. Most of the compliance pathways of the code are based on the contents of Chapter 5. Examples are the Georgia revisions to Chapter 5 tables, the Single Step Residential Energy Code Compliance packages, the Georgia Trade-off Worksheet, and MECcheck. Chapter 6 is essentially a subset of Chapter 5.

### **What are the major changes in the new Residential Energy Code?**

The major change in the IECC-2000 is a maximum glazing Solar Heat Gain Coefficient (SHGC) requirement of 0.40. In addition, the new Georgia residential energy code has identified several "weak points" in the building envelope and set worst case R-values for certain components. Also, basic requirements such as air sealing of the building envelope have been strengthened and single step compliance forms and Georgia trade-off sheet with examples were revised.

### **What are the worst case R-values for certain components?**

The minimum insulation R-values are: Attic knee walls, R-19; Cavity walls, R-11; Mass walls, R-5; Roof/ceiling, R-19; Floors over unheated spaces, R-11; Basement walls, R-5; and Crawl space walls, R-5. This means that if the basement is considered to be included within the building envelope, all basement walls, including below grade walls, are required to have a minimum insulation value of R-5. A similar requirement applies to crawlspaces; if the crawlspace walls are insulated instead of the floor, the walls must be insulated to at least R-5. Attic knee walls, any vertical wall with attic on one side and conditioned space on the other, must be insulated to R-19 minimum. No ceilings may be insulated to less than R-19.

### **What about glazing?**

1. Effective January 1, 2003, all windows are required to contain a label featuring the window U-factor and SHGC performance. If the window is NFRC rated or third party rated, those performance values will be printed on the label. If the window is not tested, the U-factor and SHGC performance values must be taken from the default Table 102.5.2(1) in the IECC-2000 and these values must be printed on the label. A sample default window label is found in Appendix B.
2. The IECC-2000 sets 0.40 as the maximum SHGC and the Georgia Amendments set a maximum U-factor of 0.65 for all residential windows. These two performance requirements are statewide minimums and will have a delayed implementation date of January 1, 2004.
3. An allowance of 5% of the glazing area may be exempted from the U-factor and SHGC requirements to allow for decorative glazing.
4. A new version of MECcheck will be available for Georgia that allows the use of clear glazing with overhangs or external shade screens to demonstrate compliance with the 0.40 SHGC requirement.
5. It is expected that most windows will use double-paned low-e glass to satisfy the January 1, 2004 requirements. Particularly during the 2003 calendar year, builders constructing houses with windows that have higher U-factors than those specified by the prescriptive packages will need to demonstrate how these homes achieve compliance via a trade-off with MECcheck or another trade-off.

### **What are some other key issues?**

1. All recessed lights between conditioned space and unconditioned attic must be airtight, IC-rated fixtures.
2. Although it is also in the current code, the IECC-2000 requires a load calculation to properly size heating and cooling equipment. This is especially important to take advantage of the newer, high performance glazing.
3. Exterior foam plastic (such as for slab insulation) is not permitted within six inches of grade.

### **Are there other compliance options?**

Yes, except for the basic requirements, a Chapter 4-compliance approach uses an hour by hour computer simulation analysis to demonstrate compliance with the code. In this approach, any building components may be used (even single pane glass) providing a proper analysis trades off a poor performing component with a high performing one. If the net energy consumption of the proposed house is less than for a house that just meets the code, then the proposed house is in compliance.

### **What is the new Commercial Energy Code?**

The IECC-2000 Chapter 7 references ASHRAE 90.1 as the commercial code. Georgia has selected the ASHRAE 90.1-2001 version as the basis for the new commercial code. There are substantial changes between this code and the current Georgia commercial code (which is based on ASHRAE 90.1-1989), but prescriptive packages and software options are still available to demonstrate compliance. Some significant changes include the following:

- Chapter 8 of the IECC-2000 may be used as an alternative compliance pathway for commercial buildings.
- COMcheck, a free software program available from [www.energycodes.gov](http://www.energycodes.gov), may also be used to show compliance.
- An additional prescriptive compliance pathway for small commercial buildings is in Appendix B of the Georgia Amendments. These Single Step Compliance for Simple Commercial Buildings forms offer simple compliance documentation for small, straightforward commercial buildings.
- Any one of the above pathways may be used to demonstrate compliance with the commercial energy code.

A copy of the Georgia State Amendments and Supplements is available from the DCA website located at [www.dca.state.ga.us](http://www.dca.state.ga.us). If you have any questions or require further assistance, please contact the Construction Codes Office at (404) 679-3118.

