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The ISO Building Code Effectiveness Grading Schedule

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THE ISO BUILDING CODE EFFECTIVENESS GRADING SCHEDULE

By Jody Dwyer, Contract Fire Consultant

October 2012

THE UNIVERSITY of TENNESSEE 
MUNICIPAL TECHNICAL ADVISORY SERVICE

In cooperation with the Tennessee Municipal League



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The Municipal Technical Advisory Service (MTAS) was created in 1949 by the state legislature to enhance the quality of government in Tennessee municipalities. An agency of the University of Tennessee Institute for Public Service, MTAS works in cooperation with the Tennessee Municipal League and affiliated organizations to assist municipal officials.

By sharing information, responding to client requests, and anticipating the ever-changing municipal government environment, MTAS promotes better local government and helps cities develop and sustain effective management and leadership.

MTAS offers assistance in areas such as accounting and finance, administration and personnel, fire, public works,

law, ordinance codification, and water and wastewater management. MTAS houses a comprehensive library and publishes scores of documents annually.

MTAS provides one copy of our publications free of charge to each Tennessee municipality, county and department of state and federal government. There is a \$10 charge for additional copies of "The ISO Building Code Effectiveness Grading Schedule."

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THE ISO BUILDING CODE EFFECTIVENESS GRADING SCHEDULE

INTRODUCTION

The Insurance Services Office (ISO) was established in 1971 to assist with identifying and mitigating hazard risk for insurance companies that provide coverage for public and private sector customers. It addresses specific risk information for natural catastrophes, fire-protection resources, community water systems, municipal building codes, and flood zones. ISO's Public Protection Classification (PPC) Service evaluates the capacity of the local fire department to respond to and fight structure fires. By evaluating a community's ability to suppress fires, ISO provides crucial information for understanding risks associated with a specific property. From these assessments, ISO develops and assigns a rating to a community, often referred to as the ISO rating.

ISO provides information on:

- communities — fire protection, water systems, other critical infrastructure, building codes, and natural and man-made catastrophes;
- buildings — size, construction, occupancies, hazards, and public and private fire protection; and
- people — fraud, criminal and public records, claims, and employment history and background.

Communities rely on ISO's information to plan for, budget, and justify improvements in fire protection and communications infrastructure.

ISO recognizes that not all communities adopt and enforce building codes or have equally stringent building codes, nor do all communities enforce their codes with the same vigor. Yet the effectiveness of local building codes can help predict how well some structures in the community will fare in a hurricane,

earthquake, or other natural disaster. ISO's Building Code Effectiveness Classifications help distinguish the various levels of community building-code adoption and enforcement.

The concept is simple; municipalities with effective, well-enforced codes should demonstrate better loss experience when a catastrophe strikes. Buildings located in such communities, which are constructed according to current codes, should experience less severe loss.

WHAT IS THE BUILDING CODE EFFECTIVENESS GRADING SCHEDULE?

ISO works with municipal building-code authorities to assess and enforce building codes through its Building Code Effectiveness Grading Schedule (BCEGS) program. The BCEGS program assesses the building codes in effect in a community and how that community enforces them, with special emphasis on mitigating losses from natural hazards.

ISO has been conducting BCEGS surveys across the country since 1995. ISO has a database of information on more than 15,000 building-code enforcement departments serving more than 20,000 communities nationwide. ISO's extensive analysis of building-code adoption and enforcement, coupled with feedback received from building officials throughout the country, has prompted ISO to embark on a project to review, revise, and update the criteria in BCEGS.

HOW DOES THE BCEGS WORK?

ISO collects information on the building codes in effect in a particular community, as well as how the community enforces its building codes. It then



analyzes the data using the BCEGS to determine the level of building-code enforcement. Insurers may use the assigned grading to determine property insurance values or grant premium credits for buildings constructed under strictly enforced codes.

Through the BCEGS Program, ISO assigns each municipality a Building Code Effectiveness Classification from 1 (exemplary enforcement) to 10 for both commercial and residential new construction. Insurers and individual policyholders benefit from reduced losses in communities with favorable classifications. Effective code enforcement leads to safer buildings, less damage from catastrophes, and lower insured losses.

CLASS TABLE	POINT RANGE
1	93.0-100.00
2	85.0- 92.99
3	77.0- 84.99
4	65.0- 76.99
5	56.0- 64.99
6	48.0- 55.99
7	39.0- 47.99
8	25.0- 38.99
9	10.0- 24.99
10	0.0- 9.00

A CATEGORIZATION OF THE PERCENTAGE OF CITIES WITH AN ASSIGNED ISO CLASSIFICATION

- 18 percent of cities surveyed are in Class 1, 2, or 3
- 67 percent of cities surveyed are in Class 4, 5, or 6
- 15 percent of cities surveyed are in Class 7, 8, 9, or 10

SPECIAL CLASSIFICATIONS

- BCEGS Class 98 (pronounced nine-eight, not ninety-eight) enforcement is in Florida and it has a 1 percent surcharge.
- BCEGS Class 99 (pronounced nine-nine, not ninety-nine) is a class that does not meet minimum requirements, declined to participate, or the community developed properties before the initial BCEGS evaluation of the jurisdiction.

Under the evaluation system, insurance rates will not be higher. In most states, no rate increase will be implemented. The BCEGS is a credit only program and only applies to new buildings. ISO attempts to re-evaluate a city every five years, but ISO may not evaluate every city every five years. ISO often selects cities located in seismic areas and other areas subject to natural disasters for evaluation.

THE EVALUATION

ISO bases the evaluation on a combination of background data collected, the administration of the adopted building codes, the plan review process, inspections and enforcement, and qualifications of employees conducting the previously mentioned processes.

BACKGROUND DATA

The background data is a compilation of information provided by the jurisdiction that supplies ISO with administrative information and a history of the building codes used. This information is collected from a questionnaire. Information provided includes identifying the chief administrative officer and the building official, the size of the jurisdiction including population, the average assessed value of the buildings served by the building department, type of government, (i.e. city manager, county executive, county commission, mayor, etc.), the number of permits issued, type of tools used to save time and increase efficiency, type of natural hazards the jurisdiction is subject to, and the construction value in new construction as well as renovations and



additions for commercial, multi-family, residential and modular home occupancies.

ADMINISTRATION OF CODES

The administration of codes addresses the current codes and the year in which they were adopted. The adopted codes for building, electrical, mechanical, fuel gas, plumbing, energy, and wild land-urban interface should include any local amendments. The budget of the building department will be examined with references to expenditures for salaries, training, certifications, incentives for additional training, and continuing education. ISO will also review the appeals process and the members of the board of appeals and their background.

PLANS REVIEW

The plans review will include the number of plans reviewed during the reporting period and the quantity of inspections required from those reviews. ISO will inquire if plans necessitate detailing structural components so as to identify structural design issues. During the examination of the plans, the jurisdiction must identify other criteria in which it uses to enforce or mandate guidelines, for example using FEMA to establish the National Flood Insurance Program (NFIP) elevations or state-adopted codes that may be more stringent. Additionally, cities will need to show how the plan review process and the plan reviewers are evaluated.

INSPECTIONS-ENFORCEMENT

Jurisdictions will be required to indicate the number of inspections conducted for each code enforced by the building department. The ISO field representative will determine, if during the course of an inspection, the building inspector has the authority to issue correction notices or “Stop Work Orders.” Critical to the BCEGS evaluation of the inspection program is the building department’s ability to conduct “special” inspections for specific structural element deficiencies. Finally, the field representative will evaluate the issuance of the

Certificate of Occupancy and how the inspections associated with this process are conducted.

THE GRADE

After the field visit and the site survey, the ISO field representative completes the write up and then submits the BCEGS to the ISO Regional Processing Center (RPC) for review. The center reviews the grading for completeness and accuracy. A grading survey evaluation is sent to the community official who worked with the field representative. This gives the community an opportunity to comment on the quality of the process.

After the RPC verifies the grading to be appropriate, it sends the community officials a survey result letter. The letter includes a summary of the grading results and the classification details explaining the credits the community received while outlining the maximum credit available in the schedule. Insurance companies are then advised of the published classification.

RESOURCES

The ISO BCEGS questionnaire is available for download from ISO at <http://www.isomitigation.com/downloads/bcegs0001.doc>. The questionnaire provides details on what ISO will look for and evaluate during a survey.

More information on the BCEGS is available at the ISO website at <http://www.isomitigation.com/building-code-regulation.html>.

You may request a BCEGS survey by contacting the ISO Regional Processing Center for Tennessee as indicated below.

ISO
Community Hazard Mitigation Division
4B Eves Drive, Suite 100
Marlton, NJ 08053-3112
Telephone: 1-800-444-4554, option 2
E-mail: iso_east@iso.com



CONCLUSION

The BCEGS is a process and resource that benefits communities by regular evaluation of the community's building codes and inspection efforts. This process helps communities maintain current codes and follow current code enforcement practices, as communities with strong codes and code enforcement should demonstrate better loss experience and enjoy favorable insurance rates. The BCEGS is a credit-only program for new buildings, so insurance rates should not increase following a survey, but may decrease for new buildings if the classification is good enough to warrant credit. Existing buildings are not subject to the BCEGS program, and the community's BCEGS rating does not affect the insurance rates for existing buildings.



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