

U.S. Department of Housing and Urban Development Office
of Policy Development and Research

***THE STATUS OF BUILDING
REGULATIONS FOR
HOUSING REHABILITATION***

A NATIONAL SYMPOSIUM

**THE STATUS OF BUILDING REGULATIONS FOR HOUSING
REHABILITATION - A NATIONAL SYMPOSIUM**

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Prepared by:

NAHB Research Center
Upper Marlboro, MD

and

Building Technology, Inc.
Silver Spring, MD

Summary Report

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Foreword

In recent years, the resolution of many regulatory issues pertaining to housing rehabilitation has been greatly influenced by the *Rehabilitation Guidelines*, first published by the U.S. Department of Housing and Urban Development in 1980. However, each of the model building codes continues to address the subject of building rehabilitation in different ways. Not only are model codes divergent, but at least four States have rehabilitation regulations that are independent of the model codes. The result is that user expectations, compliance requirements, and code enforcement vary significantly from jurisdiction to jurisdiction.

In response to the need to regulate the rehabilitation of existing buildings in a more consistent manner, HUD sponsored the first National Symposium on the Status of Building Rehabilitation Regulations in May 1995. The meeting established the status and trends in rehabilitation regulation and resulted in recommendations for follow-on activity by industry, the three model code organizations, and HUD.

Symposium participants, working together in small groups, drafted an impressive list of needs for the rehabilitation industry. These included recommendations for the development of a national policy that will encourage cost-effective rehabilitation and the development of a self-contained national model rehabilitation code.

The rehabilitation needs of our cities are growing as we approach the 21st century. The comparative advantages of housing made available through the rehabilitation of existing buildings can enhance the character of our housing stock in the years to come. Through this symposium and other activities, HUD will continue to encourage building rehabilitation as a way to increase homeownership opportunities for all Americans.

Michael A. Stegman
Assistant Secretary for Policy
Development and Research

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National Symposium on the Status of Building Regulations for Housing Rehabilitation

SUMMARY

The National Symposium on the Status of Building Regulations for Housing Rehabilitation was convened with the overall objective of providing a status concerning rehabilitation in the United States. Under sponsorship of the U.S. Department of Housing and Urban Development (HUD), there were two overall objectives in the symposium. The first was to provide an update of the status of rehabilitation in terms of codes and practices; the second, to develop recommendations for follow-on activity on the part of the model codes, HUD, and others.

Symposium Participants

Principal figures in the housing rehabilitation industry were invited to attend and participate in the national symposium held on May 16 - 17 at the NAHB Research Center in Maryland. The participants shared current building rehabilitation interests and problems, and discussed trends and needs for the development of effective rehabilitation regulation.

The meeting included representatives of the three model building codes as well as code enforcement officials operating under these codes. Other participant organizations included the National Fire Protection Association (NFPA) and the National Institute of Building Sciences (NIBS). Representatives from the states of Massachusetts, New York, and New Jersey presented alternate approaches to the regulation of rehabilitation.

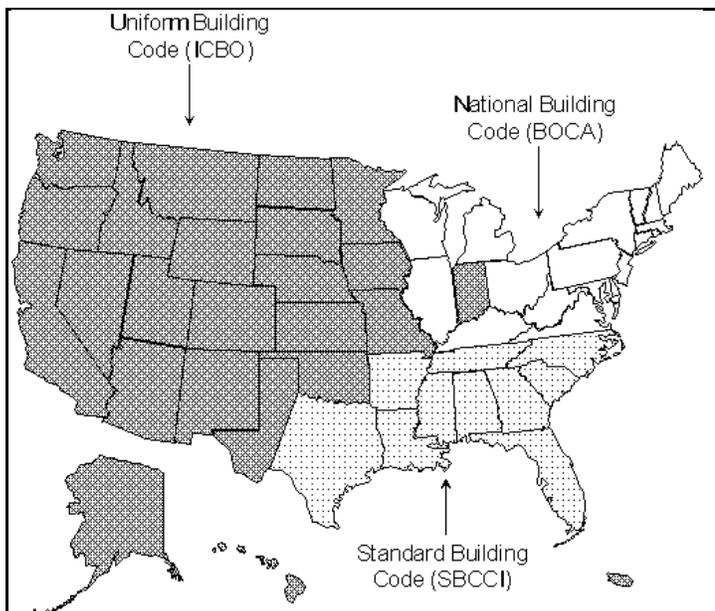


Figure 1. U.S. Map Showing Model Code Jurisdictions

Status of Current Rehabilitation Regulations

First issued by HUD in 1980, *Rehabilitation Guidelines* contained the first broad summary of policies and methods for affordability of housing rehabilitation. Although the guidelines strongly influenced building rehabilitation for the last 15 years, differing nationwide philosophies, policies, and practices have underscored the need for a review of current status and trends.

Recommendations of the Symposium

The symposium concluded with a list of several recommendations for follow-on activity that could be accomplished under HUD sponsorship. The recommendations represent a consensus of the symposium participants and presenters.

- ! Develop a national policy on housing rehabilitation through sponsorship of a White House Workshop on Housing Industry Goals and Objectives that focuses on rehabilitation.
- ! Perform a nationwide survey of rehabilitation code enforcement practices.
- ! Develop a self-contained, national model rehabilitation code to be proposed for adoption by the three model code organizations.
- ! Produce a compendium of acceptable compliance alternative for building rehabilitation.
- ! Generate guidance material containing methods of complying with legislative mandates related to rehabilitation geared to rehabilitation contractors and remodelers.

BACKGROUND AND CONTEXT

Following welcome and introductory statements, the symposium began with a presentation of the paper *Background and Context*, prepared by David B. Hattis, President of Building Technology Inc. The paper had been distributed to all attendees prior to the symposium.

HUD first became concerned about the issue of building regulations for rehabilitation in 1978. This concern led to the development of the series of documents entitled *Rehabilitation Guidelines*, the intention of which was to encourage and facilitate housing rehabilitation. These guidelines addressed both administrative and technical issues. Of particular significance was the development of tools to address the following issues:

- ! The potentially constraining effects of the current triggers to building code enforcement in existing building (the *25-50% rule* and *change of occupancy*).
- ! The need for the exercise of discretion in regulating rehabilitation.
- ! The fear of liability in code enforcement, especially as related to the exercise of discretion.
- ! The need for acceptable compliance alternatives to building code requirements that are difficult or impossible to meet in existing buildings.
- ! The recognition of the concept that there exists a continuum of performance between safety from hazards (lowest) up to current building code compliance (highest), and that where in that continuum existing buildings will be required to be upgraded is a matter of public policy that balances safety, cost and other parameters.

Following their publication in 1980, *Rehabilitation Guidelines* had an impact on the three model codes and led to specific changes. A number of states such as Massachusetts and, more recently, New York had developed specific approaches to the regulation of rehabilitation. These changes and innovations had as their objective the removal of regulatory constraints to the rehabilitation and reuse of existing buildings.

More recently there has been growing concern about the vulnerability of existing buildings to the effects of natural disasters such as earthquakes and hurricanes. This concern may lead to the imposition of new regulatory requirements on existing buildings and their rehabilitation.

HUD's sponsorship of this symposium 15 years after the publication of *Rehabilitation Guidelines* is an expression of the need to revisit the issues of rehabilitation regulation in order to further support the rational and safe reuse of the nation's existing building stock.

Mr. Hattis defined two parameters that are crucial to the discussion and resolution of issues in the regulation of rehabilitation:

- ! The distinction between requiring an existing building to comply with the *intent* of the building code and the *extent* to which an existing building is required to comply with the building code; both are currently implied in the approach of the model codes.
- ! The potentially conflicting pressures of viewing rehabilitation as *community and economic development* versus viewing it as *mitigation*.

He concluded by posing the following questions to the symposium participants:

- ! Is the building regulatory system preventing some rehabilitation from being done?
- ! Does the building regulatory system discriminate against or encourage a certain category of rehabilitation?
- ! Is the appeals process used disproportionately in rehabilitation?
- ! Is there much illegal rehabilitation?
- ! Should the regulation of rehabilitation be more uniform across states, regions, or the nation?

THE MODEL CODES AND THEIR ENFORCEMENT

The SBCCI Standard Codes

Richard A. Vognild, P.E., Director of Technical Services at SBCCI, presented the Standard Codes' approach to the regulation of rehabilitation.

In 1982 the *25-50% rule* was deleted from the Standard Building Code (SBC). In its place a requirement was introduced that an altered building not become unsafe. The building official was given the authority, subject to appeal, to determine the *extent* to which an entire building being altered must meet the building code requirements. The *change of occupancy* trigger to comply with the building code requirements was modified to compliance with the *intent* of the building code.

In 1988, responding to pressure from its membership, SBCCI published the Stand- and Existing Buildings Code (SEBC) as a guide to building officials enforcing the SBC existing building requirements. The SEBC is not referenced in the SBC. It consists of 25 pages of requirements and an appendix of about 260 pages in which *Rehabilitation Guidelines* are reproduced as a guide for acceptance of compliance alternatives. The SEBC does not establish a hazard ranking of occupancies to guide code enforcement in cases of a change of occupancy. Any occupancy change, including one to an obviously less hazardous use, must meet the *intent* of the building code. The SEBC addresses historical buildings as special cases in which leniency in code enforcement can be applied.

| SELECTED BUILDING CODE CHANGES AFFECTING HOUSING REHABILITATION | | |
|---|-----------------------|--|
| ORGANIZATION | STATUS OF 25-50% RULE | CHANGE OF OCCUPANCY PROVISION |
| SBCCI--Standard Codes | Deleted 1982 | Modified to require compliance with intent of building code |
| ICBO--Uniform Codes | Deleted 1979 | Requires compliance with building code with exception based on risk analysis |
| BOCA--National Codes | Deleted 1981 | Requires compliance with the intent of building code |

Table 1. The 25-50% Rule & Change of Occupancy Compliance Provision

Mr. Vognild stated that the SEBC recognizes widely differing local conditions leading to the need for acceptance of different rehabilitation solutions. He summarized the SEBC requirements as follows:

- ! The required minimum number of exits is the same as in the SBC, except that existing fire escapes can be counted.
- ! Tradeoffs for SBC means of egress requirements are suggested, such as automatic sprinklers with alarm, smoke detectors with alarm, manual fire alarm, fire compartmentation barriers, stair pressurization, and installation of a new fire escape.
- ! Existing handrails and guardrails installed lower than the code requirement need not comply with SBC dimensional requirements.
- ! Light, ventilation, and sanitation requirements are the same as in the SBC but no minimum room sizes are required.

Mr. Vognild stated that there is a lot of interest in housing rehabilitation, and SBCCI has developed a very popular course on housing rehabilitation for its members. However, there seems to be minimal interest in the SEBC among SBCCI members. About 200 copies were ordered in the past 12 months. No questions regarding code interpretation have been received at SBCCI headquarters. SBCCI has no information on who is using the SEBC or how it is being applied.

Mr. Vognild also mentioned the Standard Housing Code, a maintenance code that defines "safe and sanitary" housing and establishes minimum standards for livability.

Regarding current trends related to the regulation of rehabilitation, Mr. Vognild mentioned that the Board for the Coordination of the Model Codes (BCMC) has a current agenda item on existing buildings and rehabilitation under which the BOCA approach has been proposed for adoption. He also noted the creation of the International Code Council, whose goal is the creation of single set of model codes by 2000.

As to future trends, Mr. Vognild noted the growing concern driven by FEMA and the insurance industry for rehabilitation to resist natural disasters.

SBCCI Enforcement

The presentation about a jurisdiction that enforces the Standard Codes was made on day two of the symposium by David Moore, Building Official at College Station, Texas. Mr. Moore had previously been the Building Official in Hot Springs, Arkansas. His presentation referenced experiences in both places.

Mr. Moore noted that Arkansas is not a home-rule state and that, in addition to mandating the SBC, many other state laws applied to rehabilitation. Texas, however, is a home-rule state with little or no intervention. In both situations, he stressed the importance of local objectives and stated his belief that local control is key to successful housing rehabilitation.

Aside from the state context, Hot Springs and College Station are very different. Hot Springs had a Home Program that was used for home owner rehabilitation. It is an older city in which all

buildings more than 50 years old including residential care are required to obtain clearance from the State Historic Preservation Officer prior to rehabilitation. He stated that this, and other requirements in addition to the SBC posed a problem. College Station, in contrast, is a newer city. There is very little rehabilitation with 80 to 90 percent of construction in College Station being new. Most of the remaining rehabilitation is residential and includes rental properties.

College Station has adopted the Standard Codes with about 50 pages of amendments. As an example, Mr. Moore stated that he requires all buildings greater than 15,000 square feet in area, and places of assembly greater than 5,000 square feet to be sprinklered. Warehouses above 15,000 square feet must have fire separations. The SEBC is being used together with the Standard Housing Code for residential rehabilitation. It is not clear whether the SEBC is formally adopted, however. Mr. Moore also stated that College Station has adopted the Life Safety Code (NFPA 101) for existing buildings, but it is unclear how these various codes relate to one another.

He stated that even though the *25-50% rule* is no longer in the SBC, he applies it as a matter of policy in making the judgement of the *extent* of SBC compliance required in alterations. He also stated that if the integrity of any building system is touched, he requires that the entire system be brought into compliance with the SBC. Finally, compliance with state asbestos abatement requirements is a precondition to the issuance of a rehabilitation permit.

In general, however, the College Station approach to regulating rehabilitation is liberal. A predevelopment conference initiates the regulatory process in both new construction and rehabilitation. It was unclear whether this includes the developer team or only the various city departments. The Board of Adjustment and Appeals acts as a variance board for rehabilitation. The Board is conservative and does not waive the code. It accepts some "appreciable value" as an alternate to code compliance.

The ICBO Uniform Codes

Susan M. Dowty, P.E., Senior Staff Engineer at ICBO, presented the Uniform Codes' approach to the regulation of rehabilitation.

In 1979 the *25-50% rule* was deleted from the Uniform Building Code (UBC). In its place a requirement was introduced that alterations comply with the code and not cause the building to become unsafe or overloaded. Subsequent amendments have expanded on the definition of "unsafe," introducing the idea of risk analysis. The *change of occupancy* trigger requires compliance with the building code requirements but adds an exception that a building need not comply with all the requirements based on a risk analysis. These are in Chapter 34, Existing Structures, of the current UBC, which also addresses additions, repairs, and historic buildings. It is two pages in length.

Appendix Chapter 34 of the UBC contains life safety requirements for existing buildings in two parts: other than high rise buildings and high rise buildings. These are suggested retroactive requirements.

In 1985 ICBO published the Uniform Code for Building Conservation (UCBC) as a guide to building officials enforcing the UBC existing building requirements. The UCBC is specifically referenced in Chapter 34 of the UBC. It consists of 18 pages of requirements and an appendix of about 270 pages. The appendix addresses a variety of subjects including seismic strengthening of unreinforced masonry bearing wall buildings, retroactive high rise requirements, accessibility, and energy conservation. *Rehabilitation Guidelines* are also included as a guide for acceptance of compliance alternatives. The chapter on unreinforced masonry is very popular.

Ms. Dowty summarized the UCBC as follows:

- ! Chapters 1 through 3 contain administrative provisions and definitions.
- ! Chapter 4 defines minimum standards for existing buildings (alterations, repairs and additions):
 - egress elements of "sufficient size, width and arrangement,"
 - minimum number of exits, with fire escapes and winding or spiral stairways allowed,
 - corridor enclosure requirements somewhat less than in the UBC,
 - structural safety,
 - weather protection,
 - stair dimensional uniformity, and
 - unsafe conditions in electrical, plumbing and mechanical systems.
- ! Chapter 5 addresses change of occupancy by establishing five different occupancy hazard scales and specifying requirements when a given hazard is increased by the change. The five hazard scales are:
 - heights and areas,
 - life safety and exits,
 - occupancy separations,
 - exposure of exterior walls and stairway enclosures, and
 - earthquake safety.
- ! Chapter 6 addresses historic structures.
- ! Chapter 7 specifies requirements for Group R occupancies, e.g., smoke detectors.

ICBO has no information on how widely the UCBC is used. It has reportedly been adopted in Ogden, Utah, a county in Nevada, and by the state of Washington for historic structures.

Regarding current activities, Ms. Dowty noted that new appendix chapters are being developed for seismic strengthening of wood frame residential structures and tilt-up buildings. In summary, she noted that there is a lot of interest and action relative to the UCBC, and that the development of a commentary on the UCBC would be very helpful.

ICBO Enforcement

The presentation on a jurisdiction that enforces the Uniform Codes was made on day two of the symposium by Thomas Kinsman, Principal Engineer, Department of Construction and Land Use, Seattle, Washington. Mr. Kinsman's department is responsible for zoning reviews as well as building code and housing code enforcement since 1979. The department has 250 employees including 21 building plan reviewers and other specialists. The level of technical expertise and credentials is high. Since 1975 the UBC has been used with amendments developed with strong industry participation.

There is extensive rehabilitation in Seattle. (Of all plan reviews, Eighty-five percent deal with existing buildings and accounts for 38% of the value of construction in Seattle.) Seattle's flexible approach to the regulation of rehabilitation evolved from the early 1970s and the revitalization and rehabilitation of the Pioneer Square area. Initially the building department pressed for extensive improvements, including the seismic upgrading of all unreinforced masonry buildings. These were watered down during the redevelopment process, and by 1978 the current regulatory approach had been established. It features a negotiation process between the owner/developer and the building department that begins with a predesign meeting, and which allows the code official to waive impractical requirements. The negotiation process is based on a detailed knowledge of the building stock, local economy, and social conditions, and on the application of high professional standards within the building department.

The rehabilitation regulatory process in Seattle is governed by Section 104 of the building code and the concept of "substantial" alteration as codified, as well as an unwritten policy that prohibits the "unmitigated extension of an existing non-conformity." The philosophy recognizes that partial upgrade is better than none.

Additions and renovations must comply with the code. "Substantial" alterations trigger fire, life safety, high rise provisions and seismic new construction requirements. "Substantial" alterations are defined as:

- ! Extensive structural repairs (a category rarely used).
- ! Substantial extension of the building's useful life (extensive installation of new systems).
- ! Change to a more hazardous occupancy. (Seattle has included an occupancy hazard scale in its code since the 1950s or 1960s which is based on the product of a life hazard rating and a fire hazard rating.)
- ! Re-occupancy of a vacant building.

In the case of "substantial" rehabilitation, the owner is invited to lay out his proposal before the building department. The subsequent negotiation produces an agreement on the reasonableness of the proposal. Accessibility requirements are non-negotiable, being state-mandated.

There is currently a growing awareness of the need for seismic improvement in existing buildings, and much effort is being directed toward this end. A variety of resources are used to guide seismic retrofit, including the UCBC requirements for unreinforced masonry bearing wall structures.

Mr. Kinsman summarized the key strengths of Seattle's approach as follows:

- ! A guideline for judgment versus a rigid philosophy of code enforcement.
- ! Sharing of the responsibility for safety with the owner and design professional.
- ! Flexibility to accommodate the variability in the building stock.
- ! The recognition that achieving building safety in rehabilitation is a social/political problem as well as a regulatory/technical problem.
- ! A highly professional code enforcement staff.
- ! The system does not create vacant buildings.

In response to Mr. Hattis' opening questions, Mr. Kinsman added the following strengths:

- ! While a few projects may be "killed" by the process, it is sensitive to budget problems.
- ! There are very few appeals in Seattle. The average is 5 to 6 a year and most of these appeals relate to new buildings.

He further noted the following weaknesses:

- ! The lack of a clear definition of "substantial" alteration, which leads to a process similar to the old *25-50% rule*.
- ! The lack of a definition of "substantially" vacant building, particularly in partially occupied buildings.
- ! Difficulties with the old occupancy hazard scale.
- ! Lack of clear standards for seismic upgrades.
- ! The need for more specialized professional staff.
- ! Insiders do better than outsiders, creating the perception that the process is unfair.

Current activities in Seattle include the rewriting of Section 104 with primary emphasis on seismic improvements.

Mr. Kinsman's presentation led to a long discussion regarding the authority to waive code requirements when compliance is "impractical." Many questions were raised. Can it be based on knowledge of the building and the people? Should it be exercised by the building official or an appeals board? Is "waiver" the right term or should "alternative" be used?

The BOCA National Codes

Kenneth Schoonover, P.E., Vice President of Codes and Standards at BOCA, presented the National Codes' approach to the regulation of rehabilitation. He stated his belief that all three model codes have the same philosophy on the regulation of rehabilitation and the differences are in the "packaging".

In 1981 the *25-50% rule* was deleted from the National Building Code (NBC). In its place a requirement was introduced that an altered building not become unsafe. The *change of occupancy* trigger has required compliance with the *intent* of the building code. Actually "the provisions of law

governing building construction" since at least 1978.

In 1984 BOCA published an Existing Structures Code that included all the requirements applicable to existing structures, including maintenance. The appendix to this code included the technical HUD Rehabilitation Guidelines. These were later eliminated as a "packaging" issue.

"They were available elsewhere, and were not needed in the code. . .".

The Existing Structures Code returned to being purely a maintenance code.

In 1985 BOCA published the Supplement to the 1984 NBC which included Article 32 as an alternative to compliance with new construction requirements where "there is work involving repairs, alterations, additions, or changes of use." Article 32 was based on work developed in Ohio that, in turn, was based on New York City's approach to the regulation of existing office buildings. This section was later included in Chapter 34 of the NBC, which is eight pages in length.

The compliance alternatives approach of the NBC consists of evaluating an existing building and assigning a numerical rating to each of 17 parameters, all of which are related to fire and life safety. The numerical ratings are a function of occupancy classification, type of construction and physical features of the building. The code defines mandatory minimum scores for each use group. Meeting or exceeding these mandatory scores is acceptable as an alternative to compliance with the remainder of the building code requirements.

Mr. Schoonover characterized the inclusion of detailed compliance alternatives in Chapter 34 of the NBC as an example of the "packaging" difference when compared to the other model codes. He stated the philosophy of the BOCA approach as: "except for some specific improvements related to hazards, allow changes to buildings if they become at least as good or better than they were before".

Mr. Schoonover stated that BOCA does not receive many enquiries on interpretation of Chapter 34 and has no information on its use.

Extensive revisions to the compliance alternatives portion of Chapter 34 have been

| MODEL CODE TRENDS IN BUILDING REHABILITATION REGULATIONS | | |
|--|--------------|---|
| CODE | CHANGES MADE | SIGNIFICANT DOCUMENTATION |
| SBCCI | 1988 | Standard Existing Building Code (SEBC), with <i>Rehabilitation Guidelines</i> |
| ICBO | 1979 | Includes Chapter 34, Existing Structures |
| ICBO | 1985 | Uniform Code for Building Conservation (UCBC). References Chapter 34 of the UBC with <i>Rehabilitation Guidelines</i> |
| BOCA | 1984 | Existing Structures Code (ESC) without <i>Rehabilitation Guidelines</i> : Code Reverts to a Maintenance Code |

Table 2. Trends in Model Code Recognition of the Significance of Building Regulations

recommended by the BOCA Building Code Development Committee in 1995 and will be voted on by the BOCA membership. The proposed revisions reflect changes in the property maintenance and building codes.

BOCA Enforcement

The presentation on a jurisdiction that enforces the National Codes was made on day two of the symposium by David A. Gecks, P.E., of the Cincinnati Department of Buildings and Inspections and Joseph Brashear, R.A., of Brashear - Bolton, Inc., architects in Cincinnati. It should be noted that the BOCA compliance alternatives approach was initially developed by Ohio with participation from the city of Cincinnati.

Ohio mandates the use of the NBC and its own plumbing code. Local jurisdictions retain the authority to regulate one-, two-, and three-family dwellings, as well as to adopt retroactive housing codes. Local code enforcement personnel have no discretionary power, all of which rests with the state.

There is extensive rehabilitation in Cincinnati, where 90 to 95 percent of plan reviews deal with alterations in existing buildings, including a significant number of changes in use. Mr. Gecks noted that when Ohio mandated the BOCA code (before the development of the current Chapter 34) the extent of required code compliance in existing building alterations increased substantially, presumably as a result of the 25-50% rule. This led to the city being "swamped with appeals," since the local officials had no discretionary powers. As a result, Cincinnati spearheaded Ohio's effort to develop the compliance alternatives approach.

Over 70 building rehabilitations have been done in the past 10 years using the Chapter 34 evaluation system which can be used for buildings built before 1959. However, this condition has not reduced the number of appeals. Mr. Gecks noted that Cincinnati has a management problem related to uniformity in applying Chapter 34 among its eight plan examiners.

Mr. Brashear, whose office does a lot of rehabilitation work, presented the perspective of an architect who deals with code enforcement in Cincinnati. He stated that the compliance alternatives approach of Chapter 34 "is not a cure-all, a panacea," but merely a useful tool. It is a tool, however, that he does not use often. If he can get the building approved under the traditional building code requirements (Sections 3401-3407 of the NBC), he prefers to do so because the compliance alternatives of Chapter 34 are "stricter than the building code." He does not use the compliance alternatives approach in alterations with no change of use, and uses it in a small percentage of projects (three or four projects in a year) involving a change of use. The latter are usually large buildings. The main reasons he uses the approach in such cases:

- ! Building exceeds the height and area requirements.
- ! Issues of horizontal separation.

Mr. Brashear noted the following specific problems with the Chapter 34 compliance alternatives:

- ! They are hard to use, although it may be getting simpler.
- ! The cost of the trade-offs in smaller projects is problematic.
- ! The conversion of small houses to commercial use creates problems with exterior wall fire ratings.
- ! Unprotected vertical shafts penalize buildings disproportionately.
- ! The method for computing the score for building area provides little benefit for small buildings by not giving much credit for a "tiny footprint."
- ! "Meaningless systems" are sometimes supported by the process, e.g., smoke detectors in assembly occupancies.
- ! There is no provision for additions without a fire wall if heights and areas are exceeded.

He noted some additional problems that may be resolved by the currently proposed revisions fashioned to help small projects:

- ! There should be more categories for fire area, particularly for smaller projects.
- ! Space division needs tighter definition.
- ! There is not enough gradation in exit access travel distance.
- ! Mixed occupancies and partial changes of use are unclear.
- ! More credit should be given for sprinklers.

In response to a question, it was stated that the Chapter 34 evaluation system is never used to establish the current level of safety of a building as the standard for its alteration. Only the mandatory minimum scores are used as standards.

Issues

Some of the issues that emerged from this part of the symposium:

- ! The model code groups do not have information on how their documents are being used in rehabilitation. There is a need to find out what is going on in local rehabilitation code enforcement.
- ! There appears to be some disagreement on the extent of local discretion needed to accommodate local differences versus the desire for uniformity.
- ! The development pressures that drove rehabilitation in the last two decades have declined, creating a new environment for rehabilitation regulation.
- ! Building regulations are developed without concern for their cost impacts. There is a need to introduce benefit/cost analysis into the process.

OTHER RELATED ORGANIZATIONS

National Fire Protection Association (NFPA)

Walter Sterling made the presentation on NFPA. He provided background on NFPA's role as a consensus standards organization. He also provided some background information on national fire loss data, demonstrating that while loss of life has dropped, property loss has not.

Mr. Sterling discussed three NFPA publications that relate to building rehabilitation:

Fire Safety Concepts Tree, NFPA 550 This document presents a systems approach to fire and life safety, as distinct from the component approach that is used by the codes. The methodology is based on sound fire protection engineering criteria and it allows change on the basis of experience and knowledge. Its two main alternative approaches are to "prevent ignition" and "manage the impact." Mr. Sterling had no sense of the extent of use of NFPA 550.

Life Safety Code, NFPA 101 The Life Safety Code establishes minimum requirements based on a component approach and includes parallel chapters on new and existing buildings in each of the occupancies that it covers. Mr. Sterling characterized the approach to existing occupancies as an equivalency concept. This approach provides for an equivalent level of life safety while recognizing the alternative arrangements that may be imposed by existing conditions. A symposium attendee reported that Kentucky has adopted NFPA 101 for existing buildings. (See also College Station, TX presentation above.)

Alternative Approaches to Life Safety, NFPA 101A This is a document initially developed in 1985 as an appendix to NFPA 101. It currently covers a limited number of occupancies: Boarding Care, Detention Care, Health Care, and Business. It is intended for use with NFPA 101 for existing structures or other unusual conditions when compliance with NFPA 101 is hard to achieve. Mr. Sterling characterized NFPA 101A as occupancy specific, component specific, and providing numerical equivalency to code compliance. In response to a question Mr. Sterling stated that the numerical system of NFPA 101A is unrelated to NFPA 550.

National Institute of Building Sciences (NIBS)

Mr. David A. Harris, FAA, President of NIBS, made the presentation. Mr. Harris started by discussing some of the differences between rehabilitation and new construction. These differences are in liability, statutory issues, costs, and performance and relate to all participants in the building process (product manufacturers, architects/engineers, builders, etc.). Some features of rehabilitations, such as demolition and waste, do not even exist in new construction. Yet despite these differences, new construction codes apply to rehabilitation. Absent a clear regulatory system, liability is defined by a standard of care. In the case of rehabilitation this standard is ill-defined.

Mr. Harris proceeded to discuss emerging environmental issues that impact on rehabilitation and existing buildings. The federal government and the Congress have taken the lead in addressing

these issues, which are characterized by many problems with few solutions. It started with asbestos in the 1970s and 1980s, but other issues have replaced it.

Lead Paint Lead paint is a major issue for pre-1978 residential buildings. Concern about lead paint was driven by HUD grants to state and local governments. For the most part, lead paint in existing buildings is regulated with little consistency by state and local health departments. The principal regulatory mechanisms are management in place, certification of contractors, reinspection, and disclosure of lead hazards. Rehabilitation contractors must comply with OSHA lead standards. Several EPA rules are to be issued in the fall of 1995, but consistent standards are not available.

Radon Radon mitigation is addressed in many local ordinances. It is also addressed in the CABO One- and Two-Family Dwelling Code for new construction. It is an issue that is manageable in new construction, but seems problematic in rehabilitation. The EPA threshold standard is very low, and there appears to be great potential for liability related to the radon hazard.

Indoor Environmental Quality This catch-all phrase covers several issues and is subject to much discussion and concern at the federal level, but it is a field where the scientific base is lacking and there is an inability to quantify the hazards. Up to now the model codes have stayed away from issues of indoor environmental quality with the exception of radon and ventilation. The latter is addressed by the ASHRAE standards.

Sustainability The recycling of materials to support sustainable growth and development will be the next arena for building regulation.

Mr. Harris concluded with current trends:

- ! Improved coordination between the national level (federal agencies and Congress) and the model codes and local regulatory system.
- ! The threat of regulation, even if it is not realized, will lead to voluntary action by product manufacturers.

STATE APPROACHES TO THE REGULATION OF REHABILITATION

Massachusetts

The presentation of the Massachusetts approach was made by Brian Gore, P.E., Technical Director of the Board of Building Regulations and Standards and Walter B. Adams, A.I.A., Commissioner, Inspection Services Department of the City of Newton.

Although Massachusetts adopted the BOCA building code as the mandatory State Uniform Code in 1972, it has developed its own system for the regulation of rehabilitation. In 1979 it added Article 22 to the code, subsequently renumbered Article 32 (developed with broad national participation), and eliminated the *25-50% rule* and the change of occupancy trigger. Article 32 applies to buildings at least six years old. It is based on the philosophy that after hazardous conditions are eliminated from an existing building, each building's current condition becomes its own standard of safety for rehabilitation.

Replacement of a whole system must comply with the building code. Beyond that, use groups are assigned a hazard rating and rehabilitation requirements are determined by the extent of increase in hazard rating involved in the rehabilitation. An increase of two or more units of hazard rating entails compliance with the code for new construction. An increase of one unit allows significant exceptions to compliance with the code for new construction. Rehabilitation involving no increase or a decrease in hazard rating must comply with a very limited set of requirements addressing egress, signage and alarm. Energy conservation requirements are also included. In addition to requirements being defined as a function of hazard, Article 32 encourages the use of compliance alternatives where strict compliance with the requirements is difficult or unfeasible. These compliance alternatives are published in an appendix to Article 32.

Recently seismic rehabilitation provisions have been developed in Massachusetts. It is estimated that they will add 1 to 3 percent to the cost of rehabilitation. The new provisions have been accepted by the Board for inclusion in Article 32 and are about to be promulgated. The relative smoothness with which these provisions were developed demonstrates the flexibility of the Massachusetts approach to regulating rehabilitation.

Enforcement of Article 32 requires that an existing building being altered must be studied, analyzed, and documented in a report. This becomes a record for future alterations of the building.

Flood control and accessibility requirements are separate from Article 32 and are triggered by the cost of damage and the value of alteration work respectively.

Key strengths of Article 32 are its brevity and succinctness. Much rehabilitation has taken place under it and, in general, people seem to be satisfied with its operation.

Weaknesses or problems with Article 32 have developed as a result of fire laws. Mr. Gore explained that while the Massachusetts building code prohibited the enactment of retroactive building ordinances, following the development of Article 32 Massachusetts did enact retroactive

fire laws in response to fire department budget cuts. These laws mandate sprinkler systems in high-rise buildings and in cases of "substantial alteration." This situation, rooted in the traditional adverse relationships between fire and building departments, has led to some inconsistency in enforcement and is currently viewed as the main shortcoming of the Massachusetts system.

Some additional shortcomings—some of which could be overcome with education if budgets were available—include:

- ! The range of expertise among building officials.
- ! Non-uniformity in the enforcement of Article 32 across the state.
- ! Budget reductions and staff shortages have limited the compilation of compliance alternatives and minimized their effectiveness.

Mr. Gore noted the following developments in the near future:

- ! Continued improvement of sections of the BOCA code by respective advisory committees.
- ! Promulgation of the seismic provisions and initiation of seismic upgrading activity.

Mr. Adams reinforced Mr. Gore's presentation with some solid examples. He noted that in Newton 98 percent of permit applications are for renovations and additions. In Boston the number is 90 to 95 percent. He views the Massachusetts approach as not penalizing rehabilitation but rather encouraging it. In this regard it is superior to BOCA Chapter 34.

New York

The New York approach to the regulation of rehabilitation was presented by Gary Higbee, A.I.A., of the Housing and Building Codes Bureau.

New York has its own building code. The code was made mandatory statewide in 1984 except for New York City. Statewide mandate of this law was in direct response to fatal hotel fires. New York's code does not follow any of the model codes. Since the 1950s New York regulated rehabilitation on the following basis (1953 edition):

- ! Alteration must comply with building code requirements.
- ! The entire building must comply if the value of alterations in a 12-month period exceeds 50 percent of the replacement value of the building. (In 1973 the period was reduced to 6 months, thereby somewhat relaxing the *50% rule*.)
- ! A building must comply with the code requirements when there is change in use.
- ! Special conditions applicable to conversion of 3-story wood frame buildings.

In 1984 provisions were added that addressed restorations and allowed repairs to be made with like or similar materials. Relocated buildings had to be as newly erected.

Mr. Higbee stated that two principal weaknesses in this approach became apparent:

- ! There was excessive reliance on the Board of Review's variance process in the enforcement of the rehabilitation provisions.
- ! The *50% rule* was too undefined.

In response to these weaknesses a process to amend the code was initiated in 1989 by a broadly based committee. In December 1994 New York amended its code to incorporate more comprehensive requirements affecting the rehabilitation of existing buildings. These were summarized by Mr. Higbee as follows:

- ! "Minor" alterations are defined and permitted without requiring code compliance.
- ! The *50% rule* (in a six-month period) is retained but clarified.
- ! Certain changes of occupancy from obviously higher to lower hazard are exempted from full code compliance.
- ! Reduced building code requirements are defined for "minor" buildings and buildings over 10 years old.
- ! Building relocation triggers foundation requirements only.

A fire safety scoring system was considered during the development of the amendment but was abandoned because code officials on the committee found it to be too complicated.

New York provides training to its code officials and they are certified. The Department of State is putting on many courses on the new rehabilitation code, but with only three months of enforcement experience it is too early to evaluate the effectiveness of the new code.

Mr. Higbee stated that, in his judgment, the amended code corrects the two weaknesses of the earlier system. Additionally, an administrative variance procedure is under consideration whereby rapid variances can be granted in routine matters, circumventing the Board of Review. Nevertheless, they are getting complaints that the code is too complicated and that the new provisions "do not go far enough."

Mr. Higbee concluded by responding to each of the questions posed by Mr. Hattis at the opening of the symposium:

- ! The regulatory system in New York is *not* preventing rehabilitation; it is economics that prevents rehabilitation.
- ! The regulatory system does discriminate against assembly occupancies.
- ! In the past the appeals process was used disproportionately for rehabilitation; they hope this will change.
- ! There is a certain amount of illegal rehabilitation, but that is unlikely to change because of the code.
- ! The regulation of rehabilitation in New York should be uniform statewide, but local political pressures on the system will continue.

New Jersey

The presentation on the regulation of rehabilitation in New Jersey was made by William M. Connolly, A.I.A., Director, Division of Housing and Development for New Jersey, Dr. David Listokin, Rutgers University Center for Urban Policy Research, and David B. Hattis, Building Technology Inc.

New Jersey's building regulatory system is integrated between the state and local levels. The system covers *all* building regulations. Fire laws such as were enacted in Massachusetts could not be enacted apart from the building regulatory system. Local code officials are more accountable to the Division of Housing and Development than to the local elected officials who appoint them. Training and professionalism are generally high.

New Jersey has mandated the BOCA National Building Code as the Uniform Construction Code (UCC) since 1977 with no technical amendments. However, it has not adopted Chapter 34, Existing Buildings. Rehabilitation in New Jersey is currently regulated under the *25-50% rule* and the change of occupancy trigger. The Center for Urban Policy Research of Rutgers University is currently preparing a study of alternative rehabilitation regulatory systems for the Division of Housing and Development. This study has recommended the development of a new rehabilitation code for New Jersey.

Mr. Connolly briefly described the current system in New Jersey. He noted that even though the *25-50% rule* is used, alteration work that is required by law (e.g., asbestos abatement, ADA, retroactive sprinkler requirement) and decoration are not included in the numerator (value of the alteration) so that they will not, in themselves, trigger additional alteration work. He defined three criteria for an effective regulatory system for rehabilitation:

- ! Timeliness (i.e., few projects handled as special cases).
- ! Predictability (i.e., due process—people need to know the law applicable to them and be free from abuse).
- ! Reasonableness (i.e., provide a reasonable level of safety without imposing excessive additional costs).

He noted that while the philosophy of the *25-50% rule* makes some sense, it fails on all three criteria. That is why New Jersey has undertaken the development of a new rehabilitation code.

Mr. Connolly stated that the New Jersey system assumes extensive use of variations by local code officials and that enforcement personnel closest to the scene should make determinations related to rehabilitation. However, realizing that excessive discretion can be abused by code enforcement personnel, the code should provide uniform requirements.

Dr. Listokin presented a summary of the New Jersey study of Rehabilitation and the Building Code.

New Jersey and national advisory boards were established to oversee the study. The study included a literature search and analyzed the state of the art of rehabilitation regulations in New Jersey, Massachusetts, New York, and Georgia. The studies included background, regulatory requirements,

case studies, and evaluation. Additionally, it analyzed Chapter 34 of the BOCA National Building Code, the ICBO Uniform Building Code, and the SBCCI Standard Building Code, and the related Uniform Code for Building Conservation (UCBC) and the Standard Existing Building Code (SEBC).

Based on this analysis and evaluation, a concept for the New Jersey Rehabilitation Code has been developed and recommended to the state of New Jersey. If accepted, the New Jersey Rehabilitation Code will be developed by the fall of 1995.

Mr. Hattis presented the concept for the New Jersey Rehabilitation Code:

Analysis of current approaches to the regulation of rehabilitation has led to the following conclusions:

- ! BOCA Chapter 34 is unclear as to its application to *alterations*. Its approach to compliance alternatives is clear as to its application to *change of use*, where it provides equivalency to (or compliance with the intent of) current code requirements. Under BOCA 34, a building undergoing a change of occupancy to a less hazardous occupancy may still be required to undergo substantial improvement. It is unclear that this approach encourages the reuse of existing buildings.
- ! Massachusetts Article 32 was developed to encourage the reuse of existing buildings. An existing building after the remediation of specified hazardous conditions is intended to become the standard for its rehabilitation. In cases of *alterations* with no change of use, no additional work is required. An occupancy hazard index is defined to regulate *change of use*. Change of use to an equal or lower hazard category requires no additional work. Change to one higher hazard category triggers some specified additional improvements, in addition to the hazard remediation. Change to two or more higher hazard categories entails compliance with current code requirements, and the encouragement of use of compliance alternatives. The use of a single occupancy hazard scale has been questioned. Some changes to an equal or lower hazard classification appear counter-intuitive. Because of this, it has been suggested that there might be several occupancy hazard scales as a function of different safety parameters.
- ! The UCBC defines five occupancy hazard scales related to five safety parameters:
 - Heights and Areas
 - Life Safety and Exits
 - Occupancy Separations
 - Exposure of Exterior Walls and Stairway Enclosures
 - Earthquake SafetyA change of occupancy to a higher hazard category on each of the five scales triggers specific compliance requirements.

The intention is to develop a New Jersey Rehabilitation Code that combines the best aspects of each of these three current approaches:

1. Define a set of occupancy hazard scales based on the experience of Massachusetts Article 32 and UCBC. Use groups of the New Jersey UCC will be placed into each of these scales. It is recognized that the relative hazards of different use groups may differ from one scale to the next.
2. Alterations with no change in use and changes in use to equal or lower hazard occupancy in all (or most) of the hazard scales will require compliance with current New Jersey maintenance and retroactive requirements only.
3. Changes in use involving minor one step increased hazard according to each of the occupancy hazard scales will require compliance with specific requirements related to the respective scale, as is done in UCBC.
4. Changes in use involving increased hazard in all of the occupancy hazard scales or large increases in any one scale will require compliance with the intent of the current UCC. The compliance alternatives contained in BOCA Chapter 34 will be allowed as one way to demonstrate compliance with the intent of the code. Other approaches, such as NFPA, may be referenced as well. Specific compliance alternatives "deemed to comply" will be documented.
5. New systems and complete "gut" rehabilitation of a building will comply with the UCC.

Comments on the New Jersey concept were solicited from symposium participants and a discussion ensued. Mr. Schoonover stated that using BOCA Chapter 34 compliance alternatives as equivalent to the intent of code for new construction was incorrect. He stated that they provided an "acceptable level" different from new construction. This is an issue of interpretation of the NBC.

| NON-MODEL CODE TRENDS IN BUILDING REHABILITATION REGULATION | |
|--|---|
| State | Rehabilitation Code Characteristics |
| Massachusetts | Developed Own System for Rehabilitation and Regulations |
| New York | Developed Own Code; Does Not Follow other Model Codes |
| New Jersey | Selectively Adopts Philosophies and Requirements Considered Best of All Available Codes |

Table 3. States with Non-Model Code Rehabilitation Provisions

HOUSING REHABILITATION ORGANIZATIONS/USERS

Salt Lake City Corporation of Community and Economic Development

Robert Drennan, Housing Rehabilitation Supervisor with the Corporation of Community and Economic Development, presented his organization's perspective on the regulation of rehabilitation.

The Corporation of Community and Economic Development is involved in a rehabilitation program of low-and moderate-income housing, mostly single family. Their challenge is to bring the properties up to minimum standards within very tight cost constraints. ("How to make a 'substandard' building acceptable to my local building official?") The issue is the cost of life safety and how to accommodate it.

Salt Lake City has adopted the Uniform Housing Code (UHC) and the Uniform Code for Building Conservation (UCBC) for housing rehabilitation, while the UBC governs new construction. In some cases the UHC and UCBC provide a "relaxed standard" that is applicable to their projects, but in other cases they refer back to the UBC. In such cases one must work closely with the building official and rely on his interpretation. (See Appendix D for an analysis of a proposed Salt Lake City Housing Code to replace the UHC.)

Mr. Drennan presented many examples of how he and the building official solve specific problems together. The key here is to work with the building official, understand his perspective and concerns, explain to him one's own goals, ask his help in making it work, and through all this "treat him with respect." Ultimately, each shares the same goal in wanting a successful project "that won't come back to haunt them." In this process, it is important to view liability as the cost of doing business, rather than as an insurmountable hurdle.

Mr. Drennan concluded that he has been lucky because he has worked with the same Salt Lake City building official for over 10 years and they have developed a personal relationship. It doesn't hurt that the building official is on his board of directors. When dealing with new officials it is difficult to overcome the initial adversarial perception of each other.

The Enterprise Foundation

William Duncan, Director of the Rehabilitation Work Group of the Enterprise Foundation, presented their perspective on the regulation of rehabilitation.

The Enterprise Foundation is involved as a nonprofit developer of low income residential properties. Mr. Duncan stated that in seriously blighted neighborhoods very little can be done, even if codes required nothing. However, there are marginal neighborhoods where projects are vitally dependent on code interpretation and where the codes have a major impact. In such cases, housing

codes are not very difficult to comply with. The problem is with building codes that are intended primarily for new construction and, when applied to older existing buildings they present problems in addressing changes in technology and differing perceptions of risk. The perceptions of risk and the cost of avoiding it are especially critical for low income housing.

Mr. Duncan stated that there are varying degrees of success in applying building codes to rehabilitation but, ultimately, "there is no really good way." This is because code officials "have no incentive to make things happen." He supports the concept of "not making the building worse" and suggested that the housing code provides a good minimum standard for rehabilitation of low income housing.

He concluded with the following appeal:

- ! Code enforcement personnel should look at the economics of housing rehabilitation.
- ! There should be training to exercise judgement.

Issues

The symposium discussion suggested:

- ! There should be communication and mutual recognition between building officials and housing officials at the local level.
- ! There is a need to integrate building code enforcement personnel into the rehabilitation process.

RECOMMENDED HUD ACTIONS

The 5 actions recommended as HUD follow-on activity have been consolidated from the break-out group recommendations, the speakers' presentations, and the comments of participants during the workshop. As such they represent a general consensus of the symposiums participants and presenters.

National Policy on Housing Rehabilitation

The fundamental role of HUD in the development of a national policy on housing rehabilitation presents a unique opportunity to exercise needed direction in a housing issue generally acknowledged as national in both scope and importance. A comprehensive housing rehabilitation policy can facilitate improvement in the outlook for increased home ownership nationally. Such a policy could be the product of a proposed White House Workshop on Housing Industry Goals and Objectives that focuses on housing rehabilitation, with participation by all major stakeholders nationally. The White House Workshop could be conducted in conjunction with the National Partners in Home Ownership and other key stakeholders and would serve as the planning vehicle for the development of a national housing policy that addresses opportunities, alternatives, and solutions in the revitalization of existing housing.

National Survey of Code Enforcement Practices Related to Rehabilitation

The model codes as well as some individual states (Massachusetts and Georgia) have adopted regulations that are flexible and designed to encourage rehabilitation. This can be directly attributed to *Rehabilitation Guidelines*. The enforcement of these regulations relies on extensive exercise of discretion by the code enforcement personnel. The model code organizations have no information on how this discretion is being exercised at the state and local levels and whether the objective of encouraging rehabilitation is being carried out or frustrated. A national survey will address this question and suggest further efforts by HUD to remove any remaining regulatory constraints to rehabilitation.

Development of a National Model Rehabilitation Code

The model codes regulate regulation primarily by specifying administrative procedures to the application of the building code in existing buildings. This leads to confusion in enforcement. A national model rehabilitation code would address this problem. As a direct follow up to the New Jersey rehabilitation code effort or in parallel with it, HUD should support the development of a self-contained model rehabilitation code for adoption by all three model code organizations.

Compendium of Acceptable Compliance Alternatives for Rehabilitation

The identification and acceptance of alternatives to strict compliance with regulatory requirements has been a key element in a rational regulatory approach to rehabilitation, because strict compliance may often be impossible to achieve in an existing building. HUD *Rehabilitation Guidelines* 5, 6, and 7^C developed in 1980^C are compendia of compliance alternatives for egress, electrical, and plumbing DWV requirements respectively. In Massachusetts, the regulation of rehabilitation has included the identification and compilation of compliance alternatives since 1979. An effort is needed to update and expand the scope of *Rehabilitation Guidelines* to include information and experience developed in the past 15 years.

Methods of Complying with Legislative Mandates Related to Rehabilitation

Requirements on rehabilitation exist today regarding accessibility, natural disaster mitigation, environmental abatement, and energy conservation. Rehabilitation contractors and remodelers must address specific methods and means for complying with these mandates. HUD is in the best position to support the development of these techniques and assist in the preparation of technical documents for the rehabilitation industry. Additional guidance materials on integrating flood, seismic, radon, and indoor air quality requirements into rehabilitation are needed.

APPENDIX: BREAKOUT GROUPS

Symposium staff generated a list of issues related to the subject of regulation of rehabilitation, as these issues emerged from the various presentations. The issues were to be presented to each of four breakout groups who met on the afternoon of day two to discuss the issues, prioritize them, and begin to consider action plans to address them.

The list of issues generated by symposium staff was the following:

1. If and how can and to what degree to integrate environmental health issues into rehabilitation codes?
2. If and how can and to what degree to integrate natural disaster mitigation and/or retrofit requirements into rehabilitation codes?
3. How to integrate or coordinate fire department and property maintenance requirements with building codes and code enforcement?
4. The management of the rehabilitation process in code enforcement.
5. How complex does rehabilitation regulation have to be or how simple can it be made?
6. How to apply cost/benefit analysis to rehabilitation code requirements?
7. How much discretion should rest with the local authority (uniformity and predictability of enforcement)?
8. What rehabilitation regulation systems are local jurisdictions using and how are they working?
9. There is not enough commentary on rehabilitation regulations and not enough training of rehabilitation enforcement officials and other process participants.

Each of the breakout groups was asked to review the issues, prioritize them, and address the high-priority issues. Each group approached these issues slightly differently, combining some, separating others, and expanding and/or adding new issues. They reported their conclusions to the symposium.

Group 1

This group combined Issues 1 and 2, and separated Issue 3 into two (fire department and housing department). Issue 10 was deleted and two new issues added:

- ! Health department coordination.
- ! Extent/uniformity of compliance.

The following three issues were assigned the highest priority:

4. The management of the rehabilitation process in code enforcement.
6. How to apply cost/benefit analysis to rehabilitation code requirements?
7. How much discretion should rest with the local authority (uniformity and predictability of enforcement)?

The next order of priority was shared among the following three issues:

8. What rehabilitation regulation systems are local jurisdictions using and how are they working?
9. There is not enough commentary on rehabilitation regulations and not enough training of rehabilitation enforcement officials.
10. Extent/uniformity of compliance.

Objectives and recommended actions were sketched out for the three top priority issues.

How much discretion should rest with the local authority (uniformity and predictability of enforcement)?

- Objective ! Less local discretion if it means better code provisions
- Actions ! Consolidate rehabilitation regulations (particularly related to change of use) into a national code or find another way of focusing the model code groups. In this context, hazard scales make a lot of sense.
! Develop training programs.

How to apply cost/benefit analysis to rehabilitation code requirements?

- Objective ! Method to determine cost/benefit ratio.
- Actions ! Develop a consensus standard.
! Work to get the model code organizations to use the consensus standard as a code change criterion, where appropriate.

The management of the rehabilitation process in code enforcement.

Objectives ! Timeliness
! Coordination with other players

Action ! Develop a model rehabilitation process (one-stop, automated, consolidated),

Group 2

Group 2 consolidated the issues into five:

- a. How can and to what degree can environmental, disaster mitigation, retroactive fire requirements, etc., integrated and coordinated into rehabilitation codes, and how complex (simple) does the system have to be? (1,2,5)
- b. How do you manage the rehabilitation process in code enforcement, including coordination with the fire department? Housing department? How much discretion should rest with local authority? (3,4,7)
- c. (6) Should we can and how could we apply cost/benefit analysis to a rehabilitation code?
- d. (8) To what extent is the present "system" working?
- e. (9) More resource materials, guides, and training are needed.

The group prioritized these issues, assigning the highest priorities to the first three, in that order. It then addressed the first two issues.

Goals ! Need to look at and *regulate* our buildings holistically (no special interest micro regulation).
! Simplify the process.
! Timeliness/predictability/reasonableness.

Action ! Find a way to empower building officials to enforce all the applicable regulations.
! Institute "one-stop shopping".

Impediments ! Advocacy groups.
! Resistance of building officials to take on extra roles.
! Overall atmosphere opposed to regulation.
! Lack of funds.
! Federal regulations/unfunded mandates.

Resources ! Licensed professionals (part of the process will be privatized).
! Overall atmosphere opposed to regulation (convince the public).
! Model codes, NCSBCS, NIBS.

! HUD.

The group recommended that the following next steps be taken:

- Federal ! Develop a national policy on rehabilitation by:
- Convening a White House construction industry goals workshop.
 - Coordinating with HUD National Partners in Home Ownership.
- State ! Adopt statewide national model codes in 2000.
- Local ! Get mayors/city councils to recognize the need for "one-stop shops".
! Initiate preconstruction conference on a one-stop basis.

Group 3

Group 3 discussed the issues and added two new ones:

10. What type of rehabilitation is having major regulatory difficulty? (Probably major alterations within a use group.)
11. If and how to integrate local political goals regarding rehabilitation into a rehabilitation code?

It then assigned the top three priorities in the following order:

7. How much discretion should rest with the local authority (uniformity and predictability of enforcement)?
5. How complex does rehabilitation regulation have to be or how simple can it be made?
9. There is not enough commentary on rehabilitation regulations and not enough training of rehabilitation enforcement officials.

The group proceeded to discuss Issue 7 and to raise questions related to it:

- ! Rehabilitation codes are usually administrative provisions on how to apply the building code to existing buildings, allowing the local officials discretion in doing this. Is there, therefore, a need to develop a specific and separate rehabilitation code in order to reduce discretionary enforcement?
- ! Is this merely a packaging question? Do the current code provisions for existing buildings constitute a rehabilitation code if they were merely well-indexed to the building code?

- ! Where should substantive decision making reside? At the state or the local levels? Local level decision making speeds up the permit process, but the extent of discretionary decisions should be limited.
- ! It takes commentary in the code^C as well as education and training^C to be able to navigate through the apparently complex issues of a rehabilitation code (Issue 9).

The group concluded with the recommendation that a model rehabilitation code should be developed. The guiding principles of the code should be:

- ! To allow repair and alteration to be done without requiring the building to meet the code for new construction.
- ! The rehabilitation code's provisions should maintain public safety.
- ! The rehabilitation code should start with the maintenance provisions of the fire prevention and housing codes.
- ! New work in existing buildings should comply with the building code, with some possible exceptions.
- ! Other interests (fire services, disaster mitigation, environmental health, etc.) should be able to amend the rehabilitation code by statute, if appropriate.

Group 4

Group 4 chose to lump all the issues into one, which it characterized as the interaction between the code process (tools) and the legislative process (needs) with emphasis on the technical aspects and necessary tools.

It posed the question, "How will the code process and the legislative processes be responsive to each other?" and proposed the following responses:

- ! Make it a proactive process.
- ! Assure participation of affected parties in both processes.
- ! Establish quantified measures and threshold based on cost/benefit analysis.
- ! Incorporate all applicable technologies into the process.
- ! Establish and maintain two-way open communication.
- ! Establish education and training programs for both code users and legislators.