

# **“Fire & Safety Management”**

## **Business Continuity & Emergency Awareness**

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## **Agenda**

- 1. Concepts of Business Continuity Management**
- 2. Fire Prevention & Fire Protection Requirements as per National Building Code 2005 and Maharashtra Fire Prevention and Life Safety Measures Act 2006.**
- 3. Questions & Answers**

# Business Continuity Management

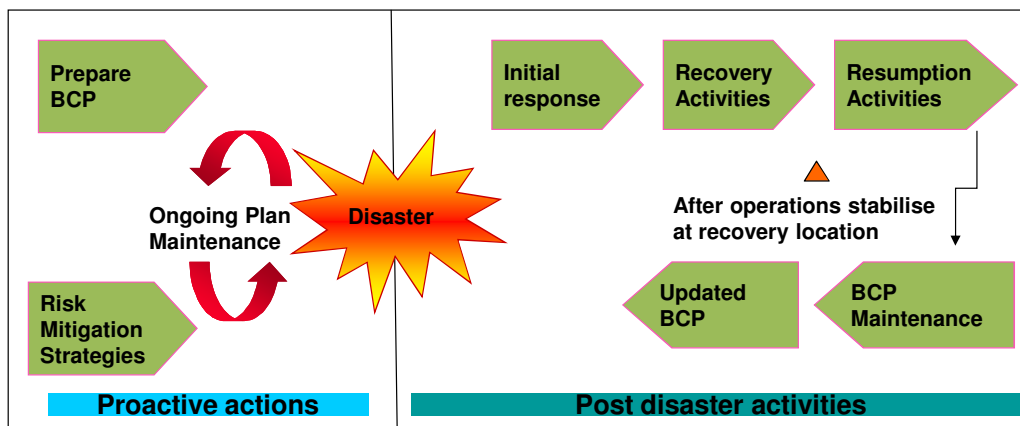
- **Uncertainty is a way of life!**
- **Organizations need to proactively **respond** to disasters**
- **Business Continuity and Emergency Awareness helps to be **prepared****
- **Better preparation leads to **effective response** to emergency situations**
- **Your company's survivability and the survivability of other companies in your supply chain depend on you**
- **Economic dependence of the community-at-large...**



## What is Business Continuity Management?

### Business Continuity Management (BCM)

- Identifies potential impacts
- Provides a framework for Continuity Management
- Helps defining the Disaster Recover Plan (DRP)



# Safe Built Environment

**Built around the philosophy of creating and maintaining Safe Built Environment for people and property by ensuring:**



**Structural Safety**



**Health Safety**



**Fire Safety**



**Construction Safety**



**Electric Safety**



**Environment Safety**



**Life Safety**



**Public Safety**

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## Classification of Buildings as per NBC 2005

- |           |               |
|-----------|---------------|
| ➤ Group A | Residential   |
| ➤ Group B | Educational   |
| ➤ Group C | Institutional |
| ➤ Group D | Assembly      |
| ➤ Group E | Business      |
| ➤ Group F | Mercantile    |
| ➤ Group G | Industrial    |
| ➤ Group H | Storage       |
| ➤ Group J | Hazardous     |

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# SAFETY CONCERNS

- One of the distinct developments brought out in NBC-2005 is an emphasis on safety concerns in buildings
- NBC-2005 considered safety as an important requirement in buildings starting from construction stage till it exists.
- Ensures safe built environment for all types of occupancies.

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## PART 4 : FIRE AND LIFE SAFETY

- Deals with Safety from Fire.
- Exits in Building V/S Importance of Life Safety.
- Involvement of Qualified & Trained Fire Protection Engineers from the very beginning.
- Standards Laid Down to provide safety from fire.
- Potential Panic Hazard – measures to minimize Panic hence control on accidents.
- Flexibility V/S Rigidity.
- Limitation of Height and areas of Building for Occupants Safety.
- Phasing out of Ozone Depleting Substance- Under Country Program.
- New standards have been already developed and put in place for Halon alternative clean agents.

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# NBC 2005 - Philosophical Change



## **Test Divided into**

various Clauses resulting in increased Understanding,  
Technological Correction & better Application :-



## **Fire Prevention.**



## **Life Safety.**



## **Fire Protection.**





Besides, Provisions specific to High rise buildings and also useful information on Industrial Venting have been retained with some useful updates.

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## **ABSOLUTE SAFETY FROM FIRE IS NOT ATTAINABLE IN PRACTICE**

- The objective of this part is to specify measures that will provide that degree of safety from fire which can be reasonably achieved.
- The Code endeavors to avoid requirements that might involve unreasonable hardships or unnecessary inconvenience or interference with normal use and occupancy of buildings, insist upon compliance with minimum standards for fire safety necessary in public interest.
- It is desirable to use such equipments/installation duly certified under the BIS Certifications Marks Scheme.

# FIRE PREVENTION

-  **Classification of Buildings (9)**
-  **Fire Zones (3)**
-  **Types of Construction (4)**
-  **Requirements common to all Occupancies**
  - Heating/Smoke venting**
  - Surface and Interior Finish**
  - Glazing/Casement/Skylights/Louvers**
  - Passive systems**



# LIFE SAFETY









- **Therefore, the National Building Code should be made part or integrated with the building regulatory documents like the building bye-laws, planning standards, building rules or development control rules and also made part of the building regulatory practices at various stages governing building development in cities, towns and villages**

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- **This could either be incorporated in the local building regulatory documents or made as 'deemed to satisfy' provisions by reference. Then automatic compliance is met with. Where needed, it can be adopted or adapted to cater to local variations, if any. This provides a Techno-legal Regime**
- **Maharashtra Government initiative is a pioneering step, as per provisions of Maharashtra Fire Prevention & Life Safety Measures Act 2006, provisions of NBC 2005 are mandatory. Some of the State / City Governments have made NBC 2005 as part of the Building Rules / Fire Protection Rules for mandatory effect**

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## **Introducing Techno-legal regime through provisions in building regulatory media and its application during the stages of**



- **Building Permit**
- **Development Permit**
- **Supervision Control**
- **Completion Certificate**
- **Occupancy Permit**
- **Periodic Renewal Certificate**

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**To mandatorily associate the right level of  
professionals (architects, engineers, structural  
engineers, supervisors, town planners, urban  
designers, landscape architect, fire protection  
engineers & professionals for utility services) of  
degree/diploma or certificate level depending on**



- **The nature of building (type, size, area, height)**
- **The location ( mega /metro city, medium/small town and villages)**

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- **90% content of all City Building Byelaws are based on contents of Part II and Part III of NBC; 5% based on Part IV and balance 5% on all other Parts**

**Part II Administration of NBC contain**

- **A series of reforms in building permit process.**
- **Provisions for ensuring and certification of safety of buildings against natural disaster by engineer and structural engineer.**
- **Provision for two stage permit for high rise residential and special buildings.**

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- **Provision for periodic renewal certificate of occupied buildings from structural, fire, electrical and health safety point of view.**
- **Provision for empowering engineers and architects for sanctioning plans of residential buildings upto 500m<sup>2</sup>.**

**Therefore Part II of NBC 2005 to be used in full / part for revamping existing Building Byelaws**

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# Adoption of NBC 2005 WAY FORWARD

- Fire Safety norms are very rarely included in Building Rules. Some Fire Safety regulations (excepting Mumbai, Delhi, Kolkata) are provided recently
- Part-IV of NBC contain revamped Fire safety norms through detailed provisions on Fire Prevention, Life Safety and Fire Protection

Therefore full adoption of Part IV of NBC 2005 should be done, without any variations. Some contents can be directly included in the Building Rules on exit requirements, fire protection options.

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Thank you for your kind attention

Questions & Answers