

**WORLD CONFERENCE  
ON NATURAL DISASTER REDUCTION**

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**APEAL**  
**TO THE GOVERNMENTS OF THE STATES OF THE WORLD**

*by  
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*A Safer World for the 21st Century*

**Union of Structural Engineers in Bulgaria**

## **A P P E A L** **TO THE GOVERNMENTS OF THE STATES IN THE WORLD**

### **For Natural and Technological Disaster Reduction**

**In connection with:** the ever more frequently occurring in the world disasters due to destruction of the structures of the buildings and all other Civil Engineering works, ("buildings etc.").

**Considering:**

**THE OBJECTIVE TECHNICAL CAUSES** for destruction of their carrying structures - due to:

- Natural impacts - earthquakes, wind storms and all others
- Functional/technological overloadings - operational errors and failures
- Physical weariness and discrepancies of the structural materials - lacking supervision and unobserved durability
- Geometrical deformations and disparity of the structural systems - lack of control, maintenance and repair, and

**THE SUBJECTIVE ADMINISTRATION FACTORS** - due to imperfections in the Normative Basis and Administrative Control - caused by:

- Negligence or lack of respective structural engineering administration - in the central and territorial municipalities, departments, etc.
- Subjective personal and/or collective structural engineering incompetence and errors in designing and construction of the carrying structures - of persons, companies, etc.
- Poor and/or lacking structural engineering permanent and periodical control and supervision during operation and maintenance of the carrying structures - by owners and users of buildings etc.

**In view of:** elimination of the stated above Causes and Factors in GLOBALLY STRATEGIC ("For a Safer World for the 21st Century") and RADICALLY PREVENTIVE ("Before Disasters Occurring") PLAN

### **THE WORLD CONFERENCE APPEALS TO**

**THE GOVERNMENTS OF THE STATES IN THE WORLD TO ESTABLISH:**

**A. Central Structural Engineering Administration - aiming to:**

1. Identifying, zoning, classifying the possible natural and technological hazards.
2. Specifying the sufficient degrees of safety and durability of buildings and all other civil engineering works, etc. ("buildings etc.").
3. Creating and serving the respective structural engineering Normative Basis (Laws, Codes, Stan-

dards, etc.) and realizing Central Administrative Control in respect to: erection (planning, designing, construction) and use (operation, supervision, maintenance) of buildings etc.

**B. Territorial Structural Engineering Administration** - which to realize the Territorial/Local Administrative Control in respect to the following **STRUCTURAL ENGINEERING**

### **BASIC RULES:**

1. Construction and reconstruction of buildings etc., shall be carried out with the permission of the Structural Engineering Administrations on the basis of their structural safety/reliability which has been argued by a competent structural design.
2. Structural design shall be prepared by competent and responsible structural specialists/engineers.
3. Structural design shall contain specific "Design Instructions" about fabricating, constructing, operating and maintaining of the carrying structures.
4. Construction of carrying structures shall be carried out by/under the leadership and control of structural specialists/engineers according to the "Design Instructions for fabricating and construction" under the control of the designer.
5. Buildings etc. shall be operated according to their specific "Design Instructions for Operation and Maintenance" which shall show: (1) the conditions of functional and technological operation and (2) the requirements of permanent and periodical supervision and maintenance.
6. Design Instructions for Operation and Maintenance of carrying structures shall be obligatory to the owners and users for observance and responsibility.
7. Owners and users shall keep the structural designs to use them in case of future reconstructions and repairs.
8. In relation to the existing buildings etc. (1) Central and Territorial Structural Engineering Administrations shall evaluate selectively the buildings etc. on their territory - from the point of view of the probable danger of natural and technological disasters, (2) in case of danger of disasters, the owners and users shall be obliged to realize the necessary structural repairs, (3) the stated above evaluations and repairs of the carrying structures shall be carried out by structural engineers/specialists.
9. The technical qualification of the structural engineers/specialists is a subject of special regulations according to the local conditions.
10. The central and territorial structural engineering administrations shall realize the necessary administrative measures for differentiation the responsibilities and increasing the cares on the problem "natural and technological disasters", for: (1) the responsibilities of the owners/users on the disasters - BEFORE (not only after and during) THEM, (2) the need of evaluation for the structural safety, reliability, durability of the buildings etc. - in case of purchase/sale, insurances, renting.

The practical aim of the above Basic Rules is the safety/reliability and durability/functionality of the fundamental conditions for life and work of the people, resp. prerequisites for functioning and development of the societies.

The growing concentration and technologisation of human societies and settlements attribute to this structural safety ever more importance with the characteristic of "social safety".

The Basic Rules shall occupy ever larger place in the national global strategic and radical preventive social safety in the states of the world. And from here - also international intergovernmental co-operation within the frames of the United Nations Social, Economical, Humanitarian, etc. Activities and Affairs will be continuously growing. Of course - first of all under the pressure of a fundamental objective social necessity.

In the "Programme of the Conference" (see W.C. Update No2/Oct.25,1993) are pointed out the following "major topics":

- "Vulnerable Communities"
- "Hazard - Resistant Construction"
- "Technological and Natural Hazards: Inter-relationship"
- "The Effect of the Disasters of Modern Societies (megacities, informations systems, communications and insurance)"

The measures and the Basic Rules mentioned in this Appeal are aimed namely to solve the problems of the above mentioned "major topics".

Sofia, November, 1993

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