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# QUALITY MANAGEMENT WHEN CHECKING THE TECHNICAL CONDITION OF STRUCTURES OF BUILDINGS AND STRUCTURES

*Annotation: the main task of testing structures is to study how compatible their actual working state with the accounting scheme is. Engineering houses consist of a working Mexican system in case of complex stress-deformation. Therefore, despite the fact that the construction kitchen and House dynamics have evolved and advanced greatly by the present time, in the design process comes information on the modeling and simplification of the accounting schemes of objects. A set of test rules is established, based on the exact principles of the test method. It develops methods for generating appearance, choosing measuring equipment, processing results according to the rules.*

*Keywords: building, structure, inspection test, true conditionm recommended*

## Introduction

The purpose and task of checking and testing the technical condition of buildings and structures is to develop methods and equipment that characterize the state and nature of objects in motion, set for assessing quality indicators, as well as to study the processes taking place in them, to experimentally determine the constructive and operational characteristics of the materials of the structure As a result of the examination of building structures, quality defects are found, analyzed and, based on the conclusions obtained, changes are made to the accounting scheme or account of this or that structure. In this regard, the inspection of structures is of great practical importance [1].

**Materials and methods**

This includes empirical methods such as modeling, fact, experiment, description and observation, as well as theoretical methods such as logical and historical methods, abstraction, deduction, induction, synthesis and analysis. The research materials are: scientific facts, the results of previous observations, surveys, experiments and tests; means of idealization and rationalization of the scientific approach.

The importance and effectiveness of the methods of inspection of buildings and structures is evident in antiseismic measures implemented in the construction practice based on the study of the consequences of previous earthquakes. Building and structures built after studying the results of the 1976 earthquake in Gazli, carrying out appropriate antiseismic measures and measures, were partially damaged in the 1984 re-repeated earthquake holos. In the 1985 Mexico City earthquake, more than 500 buildings were demolished, including 40 skyscrapers, while a number of buildings were not damaged by the earthquake, as measures were taken to reduce the impact of the earthquake. In the 1985 Qayroqkum earthquake, the building of the qayroqkum carpet enterprise, built in the 50s without antiseismic measures, was completely demolished [2].

**Results and discussion:**

The main task of testing structures is to establish how appropriate the real working State is with their accounting scheme. Engineering structures consist of mechanical systems that operate in a state of complex stress - deformation. Therefore, despite the fact that the dynamics of construction mechanics and structures have evolved and advanced greatly by the present time, in the design process it is necessary to model and simplify the accounting schemes of objects. In particular, the stretchability strength of ST3 brand Steel, which is practically considered homogeneous, is N.S.A test by streletsky found that the threshold for

fluidity varies between 200 MPa and 320 MPa. The dispersion in the strength of concrete and Wood will be even greater.

Testing plays a very important role in assessing the actual strength of any material, bringing the theoretical calculations of structures closer to their actual working state, and improving accounting algorithms.

The main purpose of the test is to study the condition of structures under loading.

While science and technology are developing, technological processes are improving. As a result of this, outdated technological systems will have to replace equipment with a new one. The process of restoring structures damaged by earthquakes, landslides, natural disasters such as winds, war actions also begins with direct inspection.

Structural structural inspection consists of 3 steps:

- primary dating with project documentation, worker performance drawings and case closure documents;

- visual inspection of the object, determining whether the object is suitable for the project, identifying visible defects, drawing up a plan for the inspection of the facility, conducting complex research using methods of indestructible testing;

- analysis of the state of the structure and the development of recommendations for the elimination of identified shortcomings.

Quality control of the construction structures being prepared is carried out using methods of demolition and indestructible testing. In distortion testing, we will have full knowledge of how the structure behaves under load and its strain-deformed state. But if we break down each prepared product and determine the strength of the test, then all the products would have become unusable. And a non-exhaustive test cannot always provide full information about the structure being tested. Even in calculations carried out using the calculation technique, full-fledged information about the actual working state of real systems cannot be

taken. Therefore, it is necessary to carry out theoretical research in practice, together with methods of testing without distortion and distortion.

One of the main tasks of inspecting and testing structures is to determine their true state and suitability for further exploitation. This problem is directly linked to the assessment of the serviceability of the system under consideration.

Reliability is understood as the property of performing a function placed in front of the system at a certain time frame, under certain operating conditions. Reliability consists of complex characteristics, including unevenness, long-term durability and serviceability for repair.

Uniqueness is the property of maintaining the operability of an object for a certain period of time. Long-term resilience is the property of an object to maintain operability without falling into a long-term bound state

Repairworthiness is the property that an object manifests itself before a breakdown and is fit to be repaired and repaired. The main purpose of testing buildings, structures and structures is to determine their load-bearing capacity, bikrity and crevi.ce. The test can also be carried out in realistic structures, layouts or models. Test facilities and methods of loading them are selected in accordance with the tasks set before the test.

When testing Real objects, the task of determining the actual working condition of the structures being exploited can be determined. Methods of indestructible testing are widely used in this. In addition to methods of non-destructive testing of structures selected for the experiment, distortion testing is also carried out. In this case, the test will continue until the structure of the structure loses its carrying capacity.

The test method is determined by a set of test rules based on specific principles. Under these rules, methods are developed for generating external influence, choosing measuring equipment, processing results. Due to the fact that the testing is associated with large material costs, as well as the use of

expensive machines and equipment in the testing process, it is necessary to carefully prepare for the testing [3,4,5,6].

The test load on structures can be given in dynamic and static ways. In the construction, according to the layout form, the loadings are presented, divided into linear and surface-distributed types.

In practice, any loading process takes place at some time interval. Therefore, there is no real static load. In order to evaluate the description of the loading by time, it is necessary to compare the period of private oscillation of the object being viewed with the time of reaching the maximum value of the loading [7,8]. If the amount of the load changes linearly and reaches its greatest value at some given time interval, and it treats the structure's private oscillation period T with a cell/T>10, the effect of force inertia during the loading process is suf ficiently small. The value of the dynamic coefficient $K_{\partial}$ does not exceed 1.03, i.e.[1]

$$K_{\partial}=U_{\partial}/U_s \leq 1{,}03 \qquad (1)$$

where: Us is the oscillation of a structure from a static load; U∂ is the oscillation of the structure from a dynamic load (considering the loading speed). In such a situation, the construction can be considered loaded in a static way.

**Conclusion:**

The change description of variable amplitude dynamic loads will be unknown until testing. Dynamic loadings are mobile and excitable. The result from the action of stationary mounted equipment is excitable, and the result from the movement of people, electrocars, cranes are moving loadings. Dynamic loadings are divided into periodic and non-linear, harmonic as well as and pulsed types, depending on the change in eigenvalue over time [9].

The types of dynamic downloads are very diverse. They can have variable amplitudes and fixed amplitudes. The value of dynamic loads with constant amplitude varies according to a specific law in time. Such loadings are formed

by the work of unbalanced mass mechanisms, generators, electric motors and blowers [10].

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