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## Improvement of Operating Buildings and Structures in Ukraine

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### Summary

This report gives a review of the building industry of Ukraine. There is also pointed out a problem of considerable moral and physical depreciation of operating buildings and structures. Special attention draws to the necessity of dwelling-houses modernization and to the obligatory certification of building materials and constructions, using on the territory of Ukraine.

In the course of last years building industry in Ukraine is in the state of crisis. Many plants of building industry practically do not work, building organizations are kept busy only partially. The builders are in the serious position and in addition to this, economic situation in the country became worse than it was on previous years, enterprises and people have no money for construction of dwelling-houses, the priorities in the sphere of dwelling-houses construction are changed.

Special feature of buildings and structures construction in Ukraine is in the fact that a great part of the country's territory is under the dangerous geological processes with the tendency to their spreading. Nearly 65 per cent of the territory of Ukraine is loess; processes of voids formation, including zones of active voids are in development; 50 per cent of settled hillsides is subjected to landslips; 10 per cent - seismic; subsidence of the earth's surface occurs over mineral workings; soil erosion has place too.

In many areas two and more dangerous geological processes have place at the same time.

Building fund of Ukraine (administrative, industrial buildings and structures, dwelling houses) forms by the cost more than 60 per cent of fixed assets of the country's economy. The abrasion value of the building fund depending on the branches of industry and elements of social sphere, fluctuates within 50-70 per cent.

In many cases buildings deterioration defines not so much by the strength indicators of load-bearing constructions as by the heat-insulation properties of exterior walls and by the state of their facade surface. Moreover, units which were built in sixties-seventies need reconstruction nearly everywhere because of their exterior features.

In many towns of Ukraine there is a great number of buildings, including dwelling-houses, which moved up to the type of uncompleted construction. It is necessary to note that in the majority of cases “the temporarily closing” of buildings, construction of which was stopped on different reasons, was not held. It lead to the fact that many elements of the buildings are subjected to the influence of atmospheric precipitation and alternating freezing and defrosting.

In the first place there is a breaking of brick walls and concrete core units of floors and creation of unfavourable conditions for basements functioning; display of uneven buildings sags, appearance of cracks and progressing breaking of building constructions are possible too.

Difficult situation with the fuel-power resources in Ukraine required the guarantee of energy economy and carrying out the policy of energy conservation. In the nearest future increasing of electric power use in the economy of Ukraine can be achieved only at the expense of its economical consumption.

New thermotechnical standards for dwelling-houses and administrative buildings complicate the restoration of the construction scope, since the “warm walls” considerably increase the cost of it (construction).

Poor quality of buildings materials and bad maintenance of available housing is a considerable problem for modernization of dwelling-houses in Ukraine.

Physical state of constructions requires special evaluation for every concrete case, since even in one building there may be considerable distinctions between physical safe of exterior walls - the most unsatisfactory maintenance characteristics may be observed on the basement and ground floors, the formation of cracks - in the butt-ended walls. That is why the modernization of buildings should have two interconnected results - increasing of wall heat insulation level and improvement of building exterior features in common.

At the present moment the Ukrainian market is filled with building materials produced abroad which in a number of cases do not meet the Ukrainian normative standards and in this connection do not provide required longevity.

Compulsory certification of building materials produced in our country and abroad will be held in Ukraine from the first of July, 1997, which gives an opportunity for considerable raising of buildings maintenance terms and will promote the improvement of their exterior features.

Taking into consideration the great potential of Ukraine as a state, scientific and engineering worlds try to improve building industry workers qualifications, quality and longevity of construction by the way of organization of exhibitions and scientific-technical seminars, elaboration of new normative documents and etc.

A great role in the increasing of buildings consumer (maintenance) properties play large foreign companies participating in seminars, conferences and exhibitions.