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IMPLEMENTATION THE INNOVATIVE TECHNOLOGIES OF ECO-BUILDING IN HOSPITALITY ESTABLISHMENTS

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Eco-building – a modern type of construction and operation of facilities using advanced technologies, which do not affect on environment and human health. Another name – green building (also ecological building, eco-development). Its aim is to reduce the level of energy consumption and material resources throughout the life cycle of the building: from the choice of area, planning, building, exploitation, repair to demolition of the buildings [1].

Another aim of green building is maintenance or improves the quality of buildings and the comfort of the internal environment.

This practice expands and complements the classical building designing notions of economy, utility, durability and comfort.

Today, eco-construction in Ukraine is only beginning to develop, so profound scientific publications on the subject almost does not exist. Especially considering the development of modern energy saving technologies.

The aim of work is research of modern aspects of introduction innovative technologies on the basis of eco-building in hospitality establishments.

To the basic principles of ecological building belong [2]:

- effective use of energy, water and other resources;
- reduction of volume of wastes and reduction of other ecological influences;
- use on possibility of building materials and products of local production;
- use of environmentally certified materials in construction and in decoration of buildings.

To save resources recommended to improve energy efficiency facilities through the introduction of renewable energy sources and modern of designing – minimization of energy consumption, use wind energy, solar panels and more.

Also recommended to use certificated building materials with low environmental impact throughout their life cycle, if possible to use materials repeatedly.

Constructed building in hospitality establishments on the principles of eco-construction characterized by improved internal environment, which has the following advantages [3]:

- sufficient amount of daylight;
- comfortable temperature regime;

- high quality indoor air;
- absence of noise.

Requirements for eco-building agreement with the Ukrainian sanitary and ecological norms in combination with more demanding ecological standards, technological innovations and best practices.

The main component of eco-construction is the use of ecological building materials [4]. Environmentally friendly building materials are not necessarily must be natural. Often they can be artificially created by man through a certain processing. However, it is important that during their production, use and disposal were not used and not allocated toxic substances. Confidence in the material can only give a certificate of ecological conformity.

According to the European rate [5], the most environmentally friendly wall materials deemed wood, but if it is not treated with antiseptics, fire retardants, lacquers in high levels of volatile organic compounds (VOC).

But untreated wood is short-lived and in the modern building it is not always applicable. Therefore, for the treatment and coating of wood using only ecologically certificated coating materials, and also used treated wood only outside the house or inside a closed construction.

Second place on ecological compatibility takes aerated concrete [5]. There are no harmful components, the level of radionuclides low, production is different low energy consumption. Aerated concrete can be used for exterior and interior walls.

Third place occupies ceramics, which compared to the aerated concrete has more radionuclides (with absolutely safe dose) and requires more energy during production.

With them on ecological compatibility successfully competing artificial materials production – adobe, hlynobeton and their varieties. Their advantages are zero energy production, so that during the construction does not use cement.

Frame walls ecologically controversial, because differing constructive decisions and materials.

For example, if used indoors wood (DSP) and wood fiber (DWT) plates, as insulation – polystyrene foam, that untight isolated from the external environment, such a house can not be called environmental [5].

To ecological roofing materials typically include reeds, shingles, ceramic tile, copper, slate. Currently their spread prevent high price. However are allowed the usual metal products. Ecological insulation materials considered cane and woodfibre mats, expanded clay, perlite, foam glass.

Stone cotton wool that used at insulation of mansard roofing and contains in its composition phenol must be completely isolated inside the structure. But it is better to change a new generation of mineral wool insulation – based on more ecologically friendly acrylic.

Thus, the eco-building is a modern direction of construction of buildings and characterized by the use of innovative technologies. The basic aspects of the implementation innovative technologies in hospitality establishments based on eco-construction are established.

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