



ASSESSMENT OF THE ENVIRONMENTAL IMPACT OF PRODUCTION IN THE FIELD OF CONSTRUCTION

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Article history:	Abstract:
Received: 20 th August 2022 Accepted: 20 th September 2022 Published: 28 th October 2022	A negative impact on the environment occurs at almost all stages of construction: in the production of research works, in the construction of roads, and quarries, as well as in the construction of direct objects. Construction sites, especially industrial zones, are characterized by high levels of air, water and soil pollution. The article deals with the assessment of the environmental impact of production in the field of construction.
Keywords: construction, wildlife, air pollution, construction site, negative impacts.	

INTRODUCTION

The negative impact on the environment occurs at almost all stages of construction: during the production of survey work, during the construction of roads, and quarries, as well as directly during the construction of facilities. Construction areas, especially industrial ones, are characterized by a high level of air, water, and soil pollution [1-4]. Preparation of the construction site, associated with cutting down forests and shrubs, burning the soil with fires, damaging the soil layer and flushing pollution from the construction site into water bodies, with drilling operations, with the construction of pits and trenches for the future facility, with the formation of construction waste dumps, with vehicle emissions and other mechanisms operating in the area of the construction site - the main sources of pollution accompanying the construction industry [5-9].

When construction is carried out in the wild, the damage is caused to all components of ecosystems, including the animal world: as a result of construction, habitats of representatives of the animal world are disturbed, which can lead to a reduction in their numbers.

By developing a section of the project on labour protection and environmental protection, designers seek to minimize the negative impact that is inevitably associated with the implementation of construction activities. Let's consider the most dangerous negative impacts on the environment, as well as the necessary measures to reduce the negative environmental impacts of construction [10-14].

THE MAIN PART

Construction site organization. This process is associated with the occurrence of a number of negative impacts - the formation of construction waste and the departure of polluting vehicles; surface runoff pollution; soil erosion; landscape change, water pollution, etc. To prevent the occurrence of these environmental problems, it is necessary to provide for the following measures: equipping exits from the construction site with vehicle wheel washing points; installation of storage bins or organization of a special site for collecting garbage, transportation of garbage using closed trays; removal of garbage and excess soil to the places specified by the Customer. Organization of industrial and domestic wastewater treatment; prevention of "outflow" of underground waters during drilling operations and their pollution during works on artificial fixation of weak soils. Protection against erosion during the release of water from the construction site; organization of cutting and storage of the soil layer; correct layout of temporary roads and access roads. Replanting and fencing of preserved trees; ensuring the exclusion of wildlife from the construction site, etc.

Transport work (this type of work also includes loading and unloading operations, operation of compressors, jackhammers and other construction equipment). This type of work is associated with the occurrence of a number of negative impacts - air pollution, pollution of soil, groundwater, fuels and lubricants, and noise pollution from operating equipment. To prevent the occurrence of these environmental problems, it is necessary to provide for the following measures: providing places for loading and unloading of dust-like materials (cement, lime, gypsum) with dust-collecting devices, equipment for vehicles transporting bulk cargo with removable awnings, providing soundproof screens for construction equipment (during construction near residential buildings, etc).

Welding, insulation, roofing and finishing work. This type of work is associated with the occurrence of a number of negative impacts - emissions of harmful substances (gases, dust, etc.) into the environment. To prevent the

occurrence of these environmental problems, it is necessary to provide for the following measures: organization of proper storage and transportation of flammable and hazardous materials (gas cylinders, bituminous materials, solvents, paints, varnishes, glass and slag wool), etc.

Stone and concrete work. This type of work is associated with the occurrence of several negative impacts - the formation of waste and the possibility of air dusting, vibration and noise loads. To prevent the occurrence of these environmental problems, it is necessary to provide for the following measures: processing of natural stones in specially designated places on the construction site; provision of work sites with dust-collecting devices, use of vibration devices that meet standards, as well as vibration and noise protection devices, etc.

Recently, the pace of construction has been growing very rapidly, and the amount of free space is decreasing. In this regard, many dilapidated and old buildings are subject to demolition to free up space for the construction of new facilities. At the same time, the question arises of solving the problem of construction waste obtained during the dismantling of buildings. In the recent past, construction sites that were declared unsuitable for use were destroyed in the following way - they were blown up, and then the remains were taken out. After that, a huge blockage of concrete, metal, and glass appeared. To disassemble these blockages, dump trucks were used, transporting garbage for further disposal to designated areas. Due to the increasing pace of construction and the demolition of dilapidated buildings, the garbage disposal is becoming a problem [10-14].

In addition, this is not a rational action, since it can be recycled and thus avoid environmental pollution. Recycling construction waste in the near future will finally become an integral stage in the process of dismantling any buildings.

After the appropriate processing of construction waste, many materials acquire a new "life" - this is wood, reinforced concrete scrap, plastic, and glass, as well as broken bricks and many other materials. Savings in the processing of construction waste are achieved by eliminating the cost of loading, transporting and unloading construction waste from its current location. Also excluded are the costs for a place at the landfill for the disposal of construction waste.

It should also be taken into account that where structures were dismantled, new construction is almost always assumed, where the crushed stone will be needed. Recycling (processing) construction waste, located in the same place as it was originally, saves money in both the purchase and transportation of materials necessary for construction. Building materials are already on the site, so the rubble does not need to be transported or delivered from another place.

Modern solutions to this problem of the construction industry, which has one of the global negative impacts on the environment, are as follows: to prevent the formation of construction waste dumps

disposal of waste at construction sites is envisaged. This solution consists of a range of options for sorting and reusing construction waste. The process of sorting construction waste improves the culture of the construction industry while solving the environmental problem associated with pollution through landfills. Sorting contributes to the recycling of construction waste. Reusing the material without significant recycling contributes to saving materials, and as a result - reducing the total amount of waste. This option is especially relevant in the reconstruction, and restoration of buildings. There is also a recycling option for sorted waste. The disadvantage of this option is the need for additional energy, transport costs, etc. In the process of processing waste into new materials, harmful substances can be released. There is also a third option - this is the incineration of waste building materials, such as wood, synthetic materials, etc., which after sorting is preferable to waste disposal in a landfill. During combustion, thermal energy is released, which can also be used.

CONCLUSION

Thus, these options contribute to minimizing such an environmental burden as a construction waste dump.

So much waste as stone materials, reinforced concrete, wood, metals, and glass can be reused both without processing and using recycling methods. Such materials are synthetic, chemical waste, paper, cardboard, remnants of containers, packaging, etc. can be reused after recycling.

This scheme can become an environmental card of the construction site, reflecting the environmental position of the construction company, if the planned options for the use (utilization) of construction waste are noted in it.

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