

## **ABOUT METHOD OF CALCULATION OF STABILITY OF BUILDINGS TO SHOCK WAVE LOADING**

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The proposed method implemented in the application consists of two parts. The first part involves calculating the pulse pressure on the front and airblast and the second - evaluation of structural stability to the effects AIRBLAST with the parameters calculated in the first part.

For calculations of pressure and pulse at the front AIRBLAST software developed and implemented the following methods: 1) Calculation of pressure and momentum of the primary shock wave (SW) at depressurization gas pipelines and processing equipment with compressed gas [2]; 2) Calculation of pressure and pulse shock wave at the diffusion combustion gas mixture in the open space [3]; 3) Calculate the pressure and shock wave pulse with deflagration explosion gas mixture smokers.

In order to evaluate the impact of structural object is broken into its constituent basic elements (beams, columns, slab), which by means of size and strength properties under construction diagrams pressure pulse and position of the point described by the dimensionless parameters of the impact is determined by the nature of the effects of shock-wave loading on the selected base element [4].

The presented program allows you to quickly calculate structural stability to the effects of the air shock wave and can be applied in the quantitative analysis of technical risk in the development and review of declarations of industrial safety of hazardous production facilities. The calculation results can be presented graphically on the diagrams. This allows you to demonstrate that for each design there are some specific areas of the state, corresponding to different stages of deformation. Furthermore, these solutions allow to develop recommendations for the design and reconstruction of buildings and structures.

### **literature**

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