EXPLOSION RISK INDEX DETERMINATION IN GASIFIED APARTMENTS OF MOSCOW

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Abstract: Using the gasified apartments ranking method according to the explosion hazard degree, 15 591 apartments in residential multiapartment buildings in Moscow were examined. Explosion risk assessment was carried out using the risk graph. The path along the risk graph is based on the assessment of four factor indicators. The indicators were evaluated based on the annual gas equipment maintenance and repair results and locksmiths survey who carry out the maintenance. The distributions of risk factor indicator values and gasified apartments in Moscow according to the explosion hazard degree are obtained.

Keywords: explosions in residential buildings; explosion hazard degree; gasified apartments ranking

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Figure Captions

Figure 1 Risk graph for assessing the explosion hazard degree

Figure 2 Histogram of the apartments number distribution by the violations number

Figure 3 Scheme for determining the gasified apartments distribution by the explosion risk index: *1* — according to Mosgas database; and *2* — according to the distributions of indicator values

Figure 4 Distribution of the gasified apartments number by the explosion risk index

Table Captions

Table 1 Results of in-house gas equipment maintenance locksmiths survey on the gasified kitchen glazing type

Table 2 Probability of detecting ventilation-related violations in gasified residential multiapartment buildings in Moscow

Table 3 Results of in-house gas equipment maintenance locksmiths survey on the frequency of apartments detection where a tenant leads an asocial lifestyle

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