The underground mines widely utilize blasting with different charge capacities. The relation between ore blasting and seismicity in mines is considered based on data on seismicity variations after explosions in Tashtagol Iron-Ore Mine (Russia). The seismic monitoring station Tashtagol records annually to 1500 seismic events in average. To analyze an influence of blasting on the seismicity, two cumulative catalogues were created, one by overlapping one-week periods after each blast, another by overlapping one-week periods before each blast. In the catalogues, the time and location of each seismic event were recalculated relatively to time and position of the corresponding explosion. As the seismicity characteristics, variations of the seismic event positions and time of occurrence as well as changes of seismic activity in space and time were considered. The seismic activity was calculated as sum of cubic roots from energies of the seismic events occurred during some time period. It was found that summarized energy of seismic events occurred during an hour increased by a factor of 20-40 after blasting. The seismic activity returned to background value in 0.5-1 day. The linear regression analysis of the explosion energy effect on the number and energy of seismic events within a week after the blasting showed their relation (on the significance level 99%) with the correlation factors 0.6 – 0.7. The post-blasting seismic events concentrated at the blast site area. Within three days after the blasting, the average distance between the epicenters of the seismic events and the explosion gradually enlarged and finally became background.