The work examines the issue of radioactivity of construction materials. The introduction deals with the approach to radioactivity from the general and legislative points of view and its origin and division. It briefly mentions units of activity. It further deals with the issue of radioactivity in construction materials as such, the issue of emerging radon and emanation of construction materials. The second part of the work focuses on extreme cases of use of unsuitable construction raw materials in the building industry in the history of the Czech Republic, specifically houses in Jáchymov, aerated concrete produced in Poříčí near Trutnov and prefabricated houses START. The closing part deals with the system of evaluation of natural radionuclide content in construction materials under the applicable legislation and it briefly describes the procedure of manufacturers and importers of construction materials in case of exceeding limit values.