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PAPER TITLE Epidemiologic data on the basis of the registry of workers
of "Mayak" Production Association

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ABSTRACT (See instructions overleaf)

"Mayak" Production Association is the first in Russia nuclear enterprise for weapon plutonium production, that was put into operation in the Southern Urals in 1948. The registry includes 14099 male and 4776 female workers, who began working at the main plants (nuclear reactors, radiochemical plant, plutonium production plant) in 1948-1972. Vital status is known for 89% of the workers included in the registry. Epidemiologic study is being carried out among the workers with known vital status and available dosimetry data. Film badge dosimetry data are available for 10881 males and 3261 females. Average cumulative external gamma dose for them is 87 cGy. Dose distribution is given in the paper. Data on internal doses from plutonium are available for 3239 males and 1097 females. 3372 male and 645 female workers died of all causes. The highest mortality is among those, who began working in 1948-1958, because of higher representation of elderly people. Preliminary epidemiologic analysis among these workers has revealed increased leukemia mortality in male workers caused mainly by external radiation exposure, increased mortality from lung cancer and liver neoplasms (in particular haemangiosarcoma) caused predominately by internal exposure from plutonium.