

## **The Mayak Worker Dosimetry System (MWDS-2013): Treatment of Organ Masses in the Calculation of Organ Doses**

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Previous Mayak worker epidemiological studies designed to quantify the risk of cancer following exposure to airborne plutonium have calculated organ doses by dividing the organ-absorbed energy by the individual's estimated organ mass. For living workers, this was done by using a relationship between organ mass and total mass and height. For autopsy cases, this was measured directly. In the Mayak Worker Dosimetry System-2013 study, organ doses are calculated by dividing this energy by a population average organ mass. The reasons for departing from previous methodologies are described in this note. The average organ masses that were used in the final analysis are tabulated for males and females.

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