Individual and Collective Effective Dose Equivalents Associated with Consumption of Venison Obtained from Deer Hunts on the Oak Ridge Reservation

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As of 1996, twelve annual deer hunts have been conducted on the Oak Ridge Reservation (ORR). Every hunter participating in the ORR deer hunt is required to take harvested deer to the checking station for radiological screening. A field laboratory set up at the deer checking station analyzes deer bone and tissue samples to determine whether the deer may be released. In addition to the field analyses, deer tissue (liver, muscle, and thyroid) samples are collected from selected deer which are released, as well as, from all deer that have been confiscated. Based on both field and laboratory radioanalytical results, annual individual and collective effective dose equivalents are estimated for venison consumption. To provide an upper bound of potential individual dose equivalents, hunters harvesting more than one deer and multiple hunters living at the same address are also evaluated. The results of these dose assessments will be presented.

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