\( ^{241}\text{Am} \) with a half-life of 458 years decays to \( ^{237}\text{Np} \) via the following processes:

- 12.7% decay by alpha emission to \( ^{237}\text{Np} \) with an energy of 5443 keV.
- 86.0% decay by alpha emission to \( ^{237}\text{Np} \) with an energy of 5486 keV.

\( ^{237}\text{Np} \) emits 78% gamma rays of 43 keV, 22% gamma rays of 103 keV, and 94% gamma rays of 59 keV.