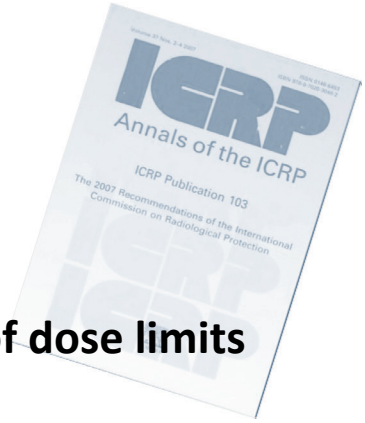
Principles of Radiological Protection

Three Fundamental Principles of Radiological Protection

ICRP's three fundamental principles of radiological protection

- **Justification**
- **Optimization**
- **Application of dose limits**



Source: ICRP Publication 103, "The 2007 Recommendations of the International Commission on Radiological Protection" (ICRP, 2007)

In cases of cancer and hereditary effects, effects appear stochastically. At present, the linear non-threshold (LNT) model is adopted in radiological protection even for low doses (p.158 of Vol. 1, "Disputes over the LNT Model"), due to which the safety and the danger cannot be clearly divided. Therefore, the protection level is considered based on the idea that risks cannot be completely eliminated and on an assumption that such risks can be tolerated. This is the very basis of the principles of radiological protection, placing emphasis on the "justification," "optimization" and "application of dose limits" (p.160 of Vol. 1, "Justification of Radiological Protection," p.161 of Vol. 1, "Optimization of Radiological Protection," and p.163 of Vol. 1 "Application of Dose Limits").

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