

# Survey on the implementation of the “justification”, “optimisation” and “limitation of doses” radiological principles in national regulations in Europe

## SWITZERLAND

### 5. Dose constraints

1. *Here again, could you give is the exact wording (citation) of the Law or regulations where the concept of dose constraint is mentioned.*

Article 49 of the Swiss Legislation on Radiological Protection

If, during the course of a monitoring period, the effective dose is greater than 2 mSv or the equivalent dose for an organ is greater than 10 mSv, then the personal dosimetry laboratory shall report the fact to the license holder and the competent regulatory agency (SFOPH, Suva) within 10 calendar days of the arrival of the dosimeter.

2. *In which domain (e.g. public dose, occupational dose, patient dose, etc) and by whom (regulatory body, operators, etc) are dose constraints implemented in your country?*

In addition to the dose limits, an intervention level of 2 mSv for the effective dose and 10 mSv for the equivalent dose for an organ per month has been introduced for activities under the jurisdiction of the SFOPH, i.e. within the medical and research fields. This constraint applies to the occupational dose and is stated in the Swiss Legislation on Radiological Protection, Article 49.

3. *What are the corresponding values and rationales behind these values?*

The annual dose limit (20 mSv) may be exceeded for workers performing normal operations resulting in an exposure of about 2 mSv per month. By investigating cases above 2 mSv per month several such situations can be detected before the dose exceed the annual limit. They occur mainly in the field of interventional radiology and angiography. In some instances the exposure can easily be reduced; however, in others, nothing can be done to reduce the dose. In these latter cases a 50 mSv annual dose limit has been approved considering the justification principle and the overall 5-year dose limit.

4. *What is(are) the status(es) of dose constraint(s)?*
5. *What is effectively done if a constraint is exceeded?*

Each case exceeding this level (2 mSv for the effective dose and 10 mSv for the equivalent dose for an organ per month) is examined by the regulatory body (SFOPH) and documented accordingly.