

# Public health: high activity sealed radioactive sources, management and control

2003/0005(CNS) - 24/01/2003 - Legislative proposal

**PURPOSE** : to prevent exposure to ionising radiation arising from inadequate control of high activity sealed radioactive sources and to harmonise controls in place in the Member States by setting out specific requirements ensuring that each such source is kept under control. **CONTENT** : the background to this proposal is that the radiation protection authorities worldwide are confronted by the issue of correct management of radiation sources, especially high activity sealed radioactive sources. The sources at greatest risk of being lost from regulatory control are disused sources held in local storage at the users' premises. The Commission estimates that there are about 30 000 such sources throughout the EU. The health and economic consequences of possible accidents involving inadequately controlled radiation sources may be particularly severe. The Commission proposes the adoption of specific legislation, based on the Euratom Treaty, supplementing the Basic Safety Standards Directive with a view to strengthening the control by the competent national authorities on those sealed radioactive sources posing the greatest risk and to emphasise the responsibilities of holders of such sources. Council Directive 96/29/Euratom sets out a number of provisions that, would prevent the risks connected with the manufacture, use and disposal of high activity sealed sources. However, with respect to potentially highly dangerous sources, additional Community provisions is needed to further reduce the likelihood of accidents involving such sources. The proposal extends to the whole European Union the most effective practices applied by some Member States. The main points of the proposal are as follows: - basically, it applies to sealed sources giving a dose rate in the order of more than 1 mSv/h at one meter distance. The resulting activity of the source depends on the radionuclides and on the quality of the radiation emitted. Such activity for the radionuclides most utilised in sealed sources is given in Annex 1. - prior authorisation is required for any practice involving a high activity source. Before issuing an authorisation, the competent authorities must ensure that arrangements have been made not only for the safe use of the source, but also for its proper management when it becomes disused. It is in fact proven that the sources most at risk of creating accidents are those that are no longer in active use and whose safe management tends to be neglected. It is therefore necessary to ensure that the control continues until the source has been transferred for its recycling, reuse or disposal under controlled conditions. - financial provisions must be made for the management of the disused sources. One element that sometimes prevents sources from being transferred for disposal is the cost of the disposal that would be normally requested to the last holder of the source. It is therefore necessary that, before the source is used in the practice from which the holder expects to obtain a benefit, financial provisions are made for the end of life of the source. - a standard record sheet must kept by holders of sources with information on the holder of the source, checks and tests performed on the source, and its transfers. - the holder must make an annual return to the competent authorities. Failure to report indicates that the sources may be at risk. - there are common requirements for holders such as leak tests, and an obligation to notify in the event of theft or loss. - the manufacturer must identify each high activity source by a unique number. - there are provisions on training for relevant workers handling high sources or being in the proximity of these sources. - competent authorities must be prepared to recover orphan high activity sources and to deal with radiological emergencies. - Member States must establish a system of guarantee for damage to human health caused by high activity sources as well as for the costs of interventions relating to them.