

N256. UK Goes for 20 mSv Limit

New radiation protection standards drawn up by Britain's National Radiological Protection Board (NRPB) recommend a straight annual dose limit for workers of 20 mSv - without exceptions and without averaging and an investigation level of 15mSv per year (to ensure that long term risks are tolerable to those most highly exposed). The new standards constitute the NRPB's formal response to the 1990 recommendations of the International Commission on radiological Protection, which in turn were prompted by reappraisals of the Hiroshima and Nagasaki atomic bomb data suggesting that the risks from radiation were two to three times greater than previously thought. The NRPB endorses the overall framework of ICRP's 1990 recommendations (e.g. in emphasizing optimization, which is the process of keeping doses as low as reasonably achievable beneath the dose limit) but, in adopting a simple annual figure, is proposing a somewhat more stringent occupational dose limit. The dose limit in the ICRP's 1990 recommendations is 100 mSv over 5 years and not more than 50 mSv in any one year. The NRPB, however, "sees no need, for the UK, to permit up to 50 mSv or averaging over five years," says Geoffrey Webb, Secretary of the Board. He also points to the practical difficulties in enforcing a dose limit averaged over several years. As yet, the NRPB's new proposed standards have the status of recommendations rather than rules, but will clearly have a major impact on the redrafting of the UK's Ionizing Radiation Regulations (IRR), which will be revised after a new Directive of the European Communities on basic radiation standards has been agreed. It is thought that the new IRR might come into force in 1997, to replace the current Regulations, which were issued in 1985. The 1985 Regulations stipulate a dose limit of 50 mSv per year. In fact only a handful of UK radiation workers currently exceed the 20 mSv level. Five years ago the picture would have been very different, with more than 1000 above the proposed limit. This is largely because the UK industry has acted upon guidelines issued by NRPB in 1987, which anticipated the likely effect that revised radiation risk estimates would have on dose limits. For the public, the NRPB recommends an overall limit of 1mSv per year, again with no averaging over 5 years, "together with a constraint for a single new source of 0.3 mSv in a year. This will be used prospectively, e.g., at the design stage of facilities."

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