

NOT YET CALENDARED FOR ORAL ARGUMENT

No. 04-71432

**IN THE
UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT**

**NUCLEAR INFORMATION AND RESOURCE SERVICE;
COMMITTEE TO BRIDGE THE GAP; PUBLIC CITIZEN, INC.;
AND REDWOOD ALLIANCE,**

Petitioners,

v.

**UNITED STATES NUCLEAR REGULATORY COMMISSION and the
UNITED STATES OF AMERICA,**

Respondents.

On Petition for Review of a Decision of the Nuclear Regulatory Commission

PETITIONERS' SUPPLEMENTAL EXCERPTS OF RECORD

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INDEX OF PETITIONERS' SUPPLEMENTAL EXCERPTS OF THE
RECORD

VOL.	DATE	DOCUMENT	BATES NO.
1	1996	International Basic Safety Standards for Protection against Ionizing Radiation and for the Safety of Radiation Sources, IAEA Safety Series No. 115, excerpts.	001-005

SAFETY SERIES No. 51/5

SAFETY STANDARDS

safety series

International
Basic Safety Standards
for Protection against
Ionizing Radiation
and for the Safety of
Radiation Sources

JOINTLY SPONSORED BY FAO, IAEA, ILO, OECD/NEA, PAHO, WHO



INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA, 1996

Schedule I

EXEMPTIONS

EXEMPTION CRITERIA

I-1. Practices and sources within practices may be exempted from the requirements of the Standards, including those for notification, registration or licensing, if the Regulatory Authority is satisfied that the sources meet the exemption criteria or the exemption levels specified in this Schedule or other exemption levels specified by the Regulatory Authority on the basis of these exemption criteria. Exemption should not be granted to permit practices that would otherwise not be justified.

I-2. The general principles for exemption³⁵ are that:

- (a) the radiation risks to individuals caused by the exempted practice or source be sufficiently low as to be of no regulatory concern;
- (b) the collective radiological impact of the exempted practice or source be sufficiently low as not to warrant regulatory control under the prevailing circumstances; and
- (c) the exempted practices and sources be inherently safe, with no appreciable likelihood of scenarios that could lead to a failure to meet the criteria in (a) and (b).

I-3. A practice or a source within a practice may be exempted without further consideration provided that the following criteria are met in all feasible situations:

- (a) the effective dose expected to be incurred by any member of the public due to the exempted practice or source is of the order of 10 μ Sv or less in a year, and
- (b) either the collective effective dose committed by one year of performance of the practice is no more than about 1 man.Sv or an assessment for the optimization of protection shows that exemption is the optimum option.

EXEMPTED SOURCES AND EXEMPTION LEVELS

I-4. Under the criteria in paras I-1 to I-3, the following sources within practices are automatically exempted without further consideration from the requirements of the Standards, including those for notification, registration or licensing:

³⁵ See INTERNATIONAL ATOMIC ENERGY AGENCY, Principles for the Exemption of Radiation Sources and Practices from Regulatory Control, Safety Series No. 89, IAEA, Vienna (1988).

GLOSSARY

irradiated, variations in size and shape of the tissue, and variations in beam geometry such as beam size and beam direction.

Potential alpha energy (of radon progeny and thoron progeny)

The total alpha energy ultimately emitted during the decay of radon progeny and thoron progeny through the decay chain, up to but not including ^{210}Pb for progeny of ^{222}Rn and to stable ^{208}Pb for progeny of ^{220}Rn .

Potential exposure

Exposure that is not expected to be delivered with certainty but that may result from an accident at a source or owing to an event or sequence of events of a probabilistic nature, including equipment failures and operating errors.

Practice

Any human activity that introduces additional sources of exposure or exposure pathways or extends exposure to additional people or modifies the network of exposure pathways from existing sources, so as to increase the exposure or the likelihood of exposure of people or the number of people exposed.

Projected dose

The dose to be expected if no protective or remedial action is taken.

Protection and safety

The protection of people against exposure to ionizing radiation or radioactive substances and the safety of radiation sources, including the means for achieving such protection and safety, such as the various procedures and devices for keeping people's doses and risks as low as can reasonably be achieved and below prescribed dose constraints, as well as the means for preventing accidents and for mitigating the consequences of accidents should they occur.

Protective action

An intervention intended to avoid or reduce doses to members of the public in chronic or emergency exposure situations.

Public exposure

Exposure incurred by members of the public from radiation sources, excluding any occupational or medical exposure and the normal local natural background radiation but including exposure from authorized sources and practices and from intervention situations.

Sealed source

Radioactive material that is (a) permanently sealed in a capsule or (b) closely bounded and in a solid form. The capsule or material of a sealed source shall be strong enough to maintain leaktightness under the conditions of use and wear for which the source was designed, also under foreseeable mishaps.

Source

Anything that may cause radiation exposure, such as by emitting ionizing radiation or releasing radioactive substances or materials. For example, materials emitting radon are sources in the environment, a sterilization gamma irradiation unit is a source for the practice of radiation preservation of food, an X ray unit may be a source for the practice of radiodiagnosis, and a nuclear power plant is a source for the practice of generating electricity by nuclear power. A complex or multiple installation situated at one location or site may, as appropriate, be considered a single source for the purposes of application of the Standards.

Sponsoring Organizations

The Food and Agriculture Organization of the United Nations (FAO), the International Atomic Energy Agency (IAEA), the International Labour Organisation (ILO), the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/NEA), the Pan American Health Organization (PAHO) and the World Health Organization (WHO).

Standards dosimetry laboratory

A laboratory designated by the relevant national authority for the purpose of developing, maintaining or improving primary or secondary standards for radiation dosimetry.

Stochastic effects of radiation

Radiation effects, generally occurring without a threshold level of dose, whose probability is proportional to the dose and whose severity is independent of the dose.

Supervised area

Any area not designated as a controlled area but for which occupational exposure conditions are kept under review even though specific protective measures and safety provisions are not normally needed.