

1973-40

141 only

add Glaser

the contaminant, and body metabolism sources of carbon monoxide are poorly understood. This paper will briefly review the rationale for the presently established standards and discuss in depth some of the newer considerations related to hyperbaric exposure.

sex of blood donors, quality of radiation, stimulation of the cells with phytohemagglutinin, oxygenation and temperature during irradiation) upon the yield of dicentric and characteristic of the dose effect relationship in lymphocytes irradiated in vitro are reviewed. Conditions for this irradiation most closely simulating the in vivo situation are specified. There are 35 references.

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summary

9.7.2. Microwave

772. Ophthalmologic certification of physical fitness to work in the range of microwave radiation - OZBYCENIOWO OKULISTYCZNE I ZIELONOSCI DO PRACY W ZASIEGU PROMIENIOWANIA MIKROFALEWEGO. Zydecki S. - Klin. Okulist., IKP WAM, Warszawa - KLINICZNA 1972 42/1A (411-415)

Principles of certification for persons working in the range of microwave radiation are presented. The suitability of principles proposed was proved by repeated examination of a group of 1,000 workers exposed to microwave radiation and 2 control groups of 1,000 persons each. A five point scale is proposed for the evaluation of lens transparency, and patterns of documentation and methods of certification of fitness are presented. An analog procedure for persons working in the range of microwave radiation is suggested.

9.8.2. Exposure, protection

775. The effect of the general factors of radiation protection in radiologic diagnostic procedure - A SUGARVEDELEM ALTALANOS TENYEZOINEK VISZONVLAGOS HATASA A RONTGENDIAGNOSTIKABAN - Tseliesko F.F. - Ther. Fak. Tansz., Allami Egvet., Uzhgorod - MAGYARORV. 1972 24/2 (103-115)

An attempt was made, by means of serial dose measurements, to establish the conditions for reducing the radiation dose concomitant with the X ray examination to a minimum. It was found that it may be considerably reduced if the usual standard filter in the X ray tube is replaced by a hard complementary filter, proportional to the kV used, ranging in thickness as far as 0.04 mm Cu + 1 mm Al. Experiments showed that a further reduction of the dose can be obtained by narrowing down of the incident radiation field. Choice of the filter depends on the examinations to be performed and the apparatus used.

9.8. Ionizing radiation

773. An accidental intake of tritiated water - Lambert B.E., Sharpe H.B.A. and Dawson K.B. - Dept. Hlth. Soc. Sec., Radiol. Protect. Serv., Sutton - AMERINDUSTRIALCASES 1971 32/10 (632-636)

Data on accidental intake of tritium which resulted in about 400 mCi of tritium distributed throughout the body water of one man is presented. The urinary excretion and loss of tritium from blood were followed for a period of time which allowed a precise estimate of dose to blood and body tissue to be calculated. In addition, lymphocyte chromosome aberrations were scored in blood samples and attempts were made to correlate dose and aberration yield. The reasons for the difficulties involved in dose effect correlations in such cases are discussed.

776. Workloads and use factors in diagnostic X ray installations - Campbell E.M., Eisenberg A. and Holloway A.F. - Phys. Dept., Manitoba Cancer Treatm. Res. Found., Winnipeg - HLTH PHYS 1972 23/1 (67-71)

A report is made on the magnitude and distribution of workloads observed during the course of radiation surveys in diagnostic X ray departments in hospitals in the Province of Manitoba. The data show that the magnitudes of the majority of these workloads were considerably lower than those quoted in tables relating to protective barrier requirements, and that the distribution of the primary beam workloads about an installation was such that suitable use factors deviated substantially from those recommended in the NCRP Report No. 34 and the Report of the Medical X Ray Advisory Committee on Public Health Considerations in Medical Diagnostic Radiology (X Rays).

9.8.1. Dosimetry

774. The in vitro dose response relationship for chromosomal aberrations in peripheral blood lymphocytes as a reference system for in vivo biological dosimetry of ionizing radiation - Linnecki J. - Inst. Occup. Med., Lodz - PRACOWNIK 1972 24/1-5 (85-92)

The potential value of chromosomal aberrations in peripheral blood lymphocytes as a biological dosimeter is emphasized. As a first step towards quantitative evaluation of dose after in vivo irradiation of man a reference system (adequate dose effect relationship) must be obtained by irradiating cells in vitro. The influence of several factors (culture time, age and

9.9. Nuclear industry

777. Radiation safety problems in the operation of atomic electric power stations (Russian) - Karlagelskaya I.G., Egorova M.S., Gusev N.G. et al. - GIGSAN 1972 37/4 (58-63)

A survey was made of the problems of radiation safety of both the personnel of atomic electric power stations (AEPS) and the population living in the vicinity. Investigations performed at the Novovoronezhskaya and Beloyarskaya AEPS showed the yearly average irradiation level of the personnel to be below 50% of the maximal