## RADIOACTIVITY AND X-RADIATION

790 What's Available in the Atomic Energy Literature. Anon. TID-4550 (6th Rev.) Technical Information Service Extension, AEC. 46 pp. (Mar. 1960).

What unclassified atomic energy literature is available, how to locate and use this information, and how this information may be obtained are discussed. Guidance is furnished for locating, obtaining, and using fully the information announced in abstract journals, indexes, bibliographies, and other informational guides issued by the United States Atomic Energy Commission. -- Nuclear Sci. Abstr.

791 Microwave Radiation Hazards. W. E. Morgan. A.M.A. Arch. Ind. Health 21, 570-573 (June 1960).

(See IHD Abstract 822, July 1959). The author offers the following suggestions for the control of possible radiation hazards: (1) Avoid any exposure to radio-frequency energy having a power density of 0.01 watts per $cm^2$ or greater. Areas accessible to transit personnel and having a power density equal to or greater than 0.01 watts per $cm^2$ should be posted with a caution sign and flashing light, and should not be occupied for any length of time. (2) Do not make detailed visual examination of any microwave radiator, reflector, wave guide horn, or magnetron during periods of transmission. (3) Limit the number of personnel having access to areas immediately adjacent to test stands or benches containing equipment radiating energy of hazardous power. Only those required to perform specific tests should be present. (4) Use dummy loads, water loads, or other absorbent materials whenever possible to absorb the energy output of the transmitter while being operated or tested. (5) When No. 4 cannot be complied with; provide absorbent screening to isolate test stands from each other or from adjacent administrative areas which may be affected by the microwave radiation. It is believed that repeated exposure to radar waves while observing proper precaution does not lead to any cumulative or chronic *effects on the body. This seems* to be proven by the lack of evidence showing that anyone has been seriously injured from working with radar equipment. There have been some reports in the past concerning alleged injuries, but it is the opinion of most medical scientists that the reported disorders were not caused by radar.

792 Effects of Ultra-High-Frequency Radiation on Animals. M. Lubin, et al. A.M.A. Arch. Ind. Health 21, 555-558 (June 1960).

Twenty-nine rabbits and 44 rats were subjected to repeated whole-body exposure with ultra-high-frequency radiation at about 400 megacycles. About an equal number of animals served as controls. No pathological damage was found which could be attributed to the effects of radiation. -- Authors' summary

793 Present Health of Children Given X-Ray Treatment to the Anterior Mediastinum in Infancy. E. A. Conti, G. D. Patton, Jane E. Conti and L. H. Hemplemann. Radiology 74, 386-391 (Mar. 1960).

A survey was made of 1,564 children in Pittsburgh given x-ray treatment to the thymus gland as a routine between 1938 and 1946. In 224 children, the diagnoses of enlarged thymus glands was made at birth. Eighty per cent of these were treated with 200 to 450 r of 140-kvp x-rays through a 4 x 4 cm port. Ninety-five per cent of the 1,340 children with thymus glands of normal size were given 150 r through a port of the same size. Between 1956 and 1958, the families of 89.6% of the treated children were questioned about the medical histories of these children and of their 2,923 untreated siblings. Positive medical data were