

CONSIDERATIONS AND CRITERIA FOR A RECOMMENDED STANDARD FOR
OCCUPATIONAL EXPOSURE TO RADIOFREQUENCY AND MICROWAVE FIELDS

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In May 1978, NIOSH initiated the development of a criteria document and recommended standard for occupational exposure to radiofrequency (RF) and microwave fields to protect workers from these radiations. The document is scheduled for completion by August 1979. The criteria and recommendations are based upon many factors including NIOSH research and field studies prior to initiation of the formal document effort, an extensive review of world literature on the subject, communications with industry, organized labor, trade associations, professional societies and academia, and extensive internal and external review by individuals selected for their expertise in particular aspects dealt with in the document. In addition, these criteria and recommendations consider information obtained from visits to industrial, communication and military facilities where RF and microwave radiation is routinely encountered.

The recommendations are based upon a critical evaluation of the biological effects and epidemiological data (or, at times, lack thereof) and consideration of commercially available instrumentation and monitoring techniques. The recommended standard is proposed to apply to all workers exposed or potentially exposed to RF/microwave fields of frequencies between 500 kilohertz and 300 gigahertz.

While there is a lack of complete agreement in the literature on the causal relationship between exposure to RF/microwave energy and certain biological effects associated with such exposures, sufficient animal studies, human case reports, and epidemiological studies do exist to permit the recommendation of an occupational exposure limit that is expected to provide increased protection for the American worker. In addition, recommendations will be made with regard to appropriate monitoring instrumentation and procedures, medical surveillance, work practices, engineering controls, record-keeping, and procedures for informing employees of potential hazards of exposure to RF/microwave energy. The document will also outline research needed to enable the development of an improved recommended standard, and will discuss the compatibility of the recommendations with existing standards and guidelines.