

SAFETY IN THE USE OF RADIOFREQUENCY DIELECTRIC HEATERS AND SEALERS

A PRACTICAL GUIDE

Prepared by the International Commission
on Non-ionizing Radiation Protection in collaboration with
the International Labour Organization
and the World Health Organization



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First published 1998

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International Commission on Non-Ionizing Radiation Protection (ICNIRP)
ILO
World Health Organization
Safety in the use of radiofrequency dielectric heaters and sealers: A practical guide
Geneva, International Labour Office, 1998 (Occupational Safety and Health Series, No. 71)
/Guide/, /Radiation protection/, /Electrical appliance/, /Occupational safety/. 13.04.6
ISBN 92-2-110333-1

ILO Cataloguing in Publication Data

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- the preparation and revision of international labour standards;
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- tripartite meetings between representatives of governments, employers and workers, including industrial committees to study the problems facing major industries, regional meetings and meetings of experts;
- action-oriented studies and research; and
- clearing-house activities, especially through the International Occupational Safety and Health Information Centre (CIS) and the Clearing-house for the Dissemination of Information on Conditions of Work.

This publication is the outcome of a PIACT project.



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INTERNATIONAL LABOUR OFFICE · GENEVA



98B09/37
engl cp.4

Preface

This publication is one of a series of practical guides on occupational hazards arising from non-ionizing radiation (NIR) carried out in collaboration with the International Commission on Non-Ionizing Radiation Protection (ICNIRP)¹ as part of the ILO International Programme for the Improvement of Working Conditions and Environment (PIACT).

The purpose of this book is to provide basic guidance on working conditions and procedures that will lead to higher standards of safety for all personnel engaged in the operation and use of radiofrequency (RF) dielectric heaters and sealers. It is intended in particular for the use of competent authorities, employers and workers, and in general all persons in charge of occupational safety and health.

The following topics are covered: RF and electromagnetic radiation, sources, exposure and energy absorption, RF biological effects, occupational RF exposure standards and guidelines, exposure assessment, control technology, work practices and administrative controls, design and installation considerations, and medical surveillance. Emphasis is placed upon protective measures.

The manuscript was prepared by an ICNIRP working group chaired by Mays L. Swicord and including Stuart Allen, Howard Bassen, David Conover and Robert Curtis. Following comments received from ICNIRP members, it was reviewed in detail during the annual meeting of the ICNIRP in Rockville, Maryland, in June 1995.

The book is the result of an ILO/ICNIRP activity in collaboration with the WHO, and is published by the ILO on behalf of the three organizations. The ILO wishes to thank the ICNIRP, and in particular Dr. Swicord and his working group, for their contribution and cooperation in the preparation of this practical guide on safety in the use of RF heaters and sealers.

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¹ The ICNIRP was established in May 1992, and has responsibility for NIR protection in the same way as the International Commission on Radiological Protection (ICRP) has for ionizing radiation.

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