



ELECTRIC AND MAGNETIC FIELDS (EMF) IN WELDING

INTRODUCTION

Electric and magnetic fields are often referred to as “electromagnetic fields,” or EMF. There is concern that EMF may affect your health. All electric welding processes create EMF.

IS EMF HARMFUL?

Many scientific tests have been, and are still being, conducted by governmental and private agencies to determine if EMF is harmful to our health. Studies to date indicate that there is no confirmed evidence of health problems from EMF.

HOW DO I MINIMIZE EXPOSURE?

- Do not place your body between the welding electrode and work cables. Route cables on the same side of your body.
- Route the welding cables close together. Secure them together with tape or cable ties.
- Connect the work cable to the workpiece as close to the weld zone as practical.

- Keep the welding power source and cables as far away from you as practical.
- Never coil a welding cable around your body.

INFORMATION SOURCES

Occupational Safety and Health Administration (OSHA). *Code of Federal Regulations*, Title 29 Labor, Part 1910, available from U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954 (phone: 800-321-6742, website: www.osha.gov).

Environmental Protection Agency (EPA). *Questions and Answers about Electric and Magnetic Fields*, National Institute of Environmental Health Sciences (of Dept. of Health and Human Services) and Dept. of Energy, available from Miles Kahn, P.O. Box 37133, Washington, DC 20013-7133.

United States Congress, Office of Technology Assessment. *Biological Effects of Power Frequency Electric & Magnetic Fields - Background Paper*, OTA-BP-AE-63, May, 1989, available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

American Conference of Governmental Industrial Hygienists (ACGIH). *Documentation of the Threshold Limit Values and Biological Exposure Indices*, available from ACGIH, 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634 (telephone: 513-742-2020; website: www.acgih.org).

National Electrical Manufacturers Association (NEMA). *Q & A: Biological Effects of Electric & Magnetic Fields*, available from NEMA, 2101 L Street, N.W., Washington, DC 20037.