Indian Journal of Occupational and Environmental Medicine
Official Publication of Indian Association of Occupational Health (IAOH)


All the rights are reserved. Apart from any fair dealing for the purposes of research or private study, or criticism or review, no part of the publication can be reproduced, stored, or transmitted, in any form or by any means, without the prior permission of the Editor, IJOEM.

IJOEM and/or its publisher cannot be held responsible for errors or for any consequences arising from the use of the information contained in this journal. The appearance of advertising or product information in the various sections in the journal does not constitute an endorsement or approval by the journal and/or its publisher of the quality or value of the said product or of claims made for it by its manufacturer.

The Journal is printed on acid free paper.

Editorial office
Dr. G. K. Kulkarni,
Siemens Ltd., Kalwa Works,
Thane-Belapur Road, Thane - 400 601
Tel: +91 22 2760 0111 / 2762 3217
Fax: +91 22 2762 3730

Published by
Medknow Publications,
A-108/109, Kanara Business Center
Off Link Rd, Ghatkopar (E),
Mumbai - 400075, India.
Phone: 91-22-66491818/1816,
Fax: 91-22-66491817
Website: www.medknow.com

For subscription and advertisement, please contact ‘Medknow Publications’

Websites
http://www.ijoem.com
http://www.journalonweb.com/ijoem

Editor
Dr. G. K. Kulkarni
editor@ijoem.com, ganesh.kulkarni@siemens.com

Associate Editor
Dr. S. Kartikeyan
drskartikeyan@rediffmail.com

Journal Secretary and Business Manager
Dr. C. S. Gulvady
chaitanya.gulvady@ril.com

Web Secretary
Divyang Shah
divyang.shah@ril.com

Editorial Advisory Board
Dr. Kalpna Balkrishnan, Chennai
Dr. N. N. Bhatikar, Goa
Dr. S. K. Dave, Ahmedabad
Dr. T. K. Joshi, New Delhi
Dr. Jairaj, Chennai
Dr. S. R. Keshavmurthy, Bangalore
Dr. J. C. Kothari, Mumbai
Dr. C. S. Pandav, New Delhi
Dr. R. H. Parekh, Mumbai
Dr. T. Rajgopal, Mumbai
Dr. S. K. Rastogi, Lucknow
Dr. R. B. Raids, Mumbai
Dr. H. R. Rajmohan, Bangalore
Dr. S. Sivaramakrishnan, Mumbai
Dr. A. K. Srivastava, Lucknow
Dr. S. M. Shanbhag, Mumbai
Dr. V. Swaminathan, Chennai

Journal Advisory Committee
Dr. N. K. Chandrasekaran, Trichi
Dr. S. Chaterjee, Kolkata
Dr. P. C. Ghosh, Mumbai
Dr. A. G. Harshe, Pune
Dr. Sunil Kakodkar, Goa
Dr. J. H. Paralikar, Baroda
Dr. S. R. Pingle, Mumbai
Dr. S. Priolkar, Mumbai
Dr. Rajesh, Jamnagar
Dr. Sudha Ramchandran, Chennai
Dr. S. M. Sapatnekar, Mumbai
Dr. P. K. Sosodiya, Dhanbad
Dr. S. P. Vivekchandrarao, Hyderabad
Dr. S. P. Zodpey, Nagpur

International Advisors
Dr. Stephen. W. Borron, USA
Dr. (Prof.) J. F. Callard, France
Dr. John Cooper, UK
Dr. Andreas Flukiger, Switzerland
Dr. (Pro.) Bengt Knav, Sweden
Dr. Michel Nasterlack, Germany
Dr. (Prof.) Harry. A. Roels, Belgium
Dr. (Prof.) Tanaka, Japan

Dr. Nobert Wagner, USA

Journal Secretary
Dr. C. S. Gulvady
Reliance Industries Ltd., Reliance Centre, Walchand Hirachand Marg, Mumbai - 400 038, India
Tel: +9122 30327064, E-mail: Chaitanya.Gulvady@ril.com
CONTENTS

Editorial

Prevention and control of silicosis: A national challenge
G. K. Kulkarni ....................................................................................................................................... 95

Review Article

Vanadium pentoxide inhalation
Ross G. Cooper .................................................................................................................................... 97

Original Articles

Occupational injury surveillance: A study in a metal smelting industry
Asim Saha, Sunil Kumar, D. M. Vasudevan ................................................................. 103

Do bullae and emphysema increase risk of pneumothorax in silicosis?
Iraj Mohebbi, Ebrahim Hassani, Shaker Salarilak, Abdul Rahman Bahrami ................................................. 108

Brief Communication

Climate change: The challenges for public health preparedness and response-
An Indian case study
Rajan R. Patil, T. M. Deepa .................................................................................................................... 113

Letter to Editor

E-waste management in India: An emerging environmental and health issue
Harshal Pandve .................................................................................................................................... 116

Obituary

.......................................................................................................................................................... 117

Branch Activities

....................................................................................................................................................... 118

Author Index - 2007

....................................................................................................................................................... 000

Title Index - 2007

....................................................................................................................................................... 000

Announcement

....................................................................................................................................................... 000

The journal is published and distributed by Medknow Publications. Copies are sent to subscribers directly from the publisher’s address. It is illegal to acquire copies from any other source. If a copy is received for personal use as a member of the association/society, one can not resale or give-away the copy for commercial or library use.
E-waste management in India: An emerging environmental and health issue

Dear sir,

The benefits of the information revolution are clear for all to see. Devices such as PCs, faxes, mobile phones, music players and a host of others open up exciting possibilities for individuals and businesses alike. Yet there is a downside to this digital era - the growing mountain of electronic waste (e-waste). How we tackle this dilemma, will have major implications for sustainability.\(^1\)

The situation is alarming as India generates about 1.5 lakh tones of e-waste annually and almost all of it finds its way into the informal sector as there is no organized alternative available at present.\(^2\) Especially, metropolitan cities like Delhi, Mumbai and Bangalore are at higher risk of environmental pollution due to e-waste. According to the study conducted by NGO Toxic Link, the Mumbai city faces grave health and environmental risks posed by a whopping 19,000 tones of electronic waste produced here apart from a good amount of the same being imported clandestinely. The rate of e-waste generation and the current methods of disposal in Mumbai pose grave environmental and health risks to the city at large due to its dense population and spatial character.\(^2\) Study by the Chittaranjan National Cancer Institute, Kolkata, found that people in Delhi are about twice as likely to suffer from lung ailments as those in the countryside due to the huge amount of e-waste generated.\(^3\) Bangalore may be generating 10,000 tonnes to 15,000 tonnes of e-waste every month, according to industry sources. The Karnataka State Pollution Control Board has put it at 10,000 tonnes a month. The amount of e-waste generated poses a grave threat to the environment as well as to public health.\(^4\)

Workers in e-waste disposal sector are poorly protected against the risk of it. They dismantle e-waste, often by hand, in appalling conditions. About 25,000 workers are employed at scrap-yards in Delhi alone, where 10,000 to 20,000 tons of e-waste is handled every year, with computers accounting for 25 percent of it. Other e-waste scrap-yards exist in Meerut, Ferozabad, Chennai, Bangalore and Mumbai.\(^5\)

The hazardous substances found in the e-waste include substantial quantities of lead, cadmium, chromium and flame-retardant plastics. Cathode ray tubes and components with high lead content are considered dangerous to health. Inhaling or handling such substances and being in contact with them on a regular basis can damage the brain, nervous system, lungs, kidneys and the reproductive system. Working in poorly-ventilated enclosed areas without masks and technical expertise results in exposure to dangerous and slow-poisoning chemicals. Due to lack of awareness, workers are risking their health and environment as well.

There is an urgent need for improvement in e-waste management covering technological improvement, institutional arrangement, operational plan, protective protocol for workers working in e-waste disposal and last but not the least education of general population about this emerging issue posing a threat to the environment as well as public health.

REFERENCES

---

H. T. Pandve
Department of Community Medicine,
Dr. D.Y. Patil Medical College, Pimpri, Pune, India

For correspondence: Dr. HT Pandve,
Department of Community Medicine,
Dr. DY Patil Medical College, Pimpri,
Pune - 411 018, India.
E-mail: dr_harshalphandve@yahoo.co.in