

# Open Letter to Stephen Johnson, Administrator, U.S. Environmental Protection Agency: Ban Endosulfan

### **We call on the U.S. Environmental Protection Agency to ban all uses of endosulfan**

Endosulfan is a persistent, bioaccumulative, highly toxic pesticide that is found in all environmental compartments and in multiple human tissues. Although the European Union and 20 other countries have already banned endosulfan for these reasons, it is still used extensively in the U.S.

About 1.4 million pounds of this chemical are used annually in the U.S.<sup>1</sup> Endosulfan runs off agricultural fields in sediment and contaminates water bodies, where it begins to bioaccumulate in the food chain. Endosulfan and its major degradate are persistent and toxic, and can remain as hazardous waste in the environment for years or even decades after the pesticide is applied.<sup>2</sup> Endosulfan demonstrates environmental fate and ecological effects similar to its chemical cousins, the cyclodiene-like pesticides, that have been either cancelled (toxaphene, mirex, kepone, dieldrin, aldrin, chlordane) or severely restricted (heptachlor) due to their hazardous nature.

Residues of endosulfan are detected as a contaminant on a very wide array of food products, including apples, tomatoes, cucumbers, pickles, zucchini, green peppers,

olives, raisins, cantaloupe, prunes, squash, potatoes, canned pears, spinach, green beans, and butter.<sup>3</sup> Endosulfan is found in all environmental compartments: rain, fog, surface water, ground water, and soil. Atmospheric transport of endosulfan has resulted in contamination of Arctic regions distant from use areas.<sup>4,5</sup> Residues of endosulfan have been detected in multiple human tissues including blood, fetal placenta, breast milk, and mammary adipose tissue.<sup>6-10</sup>

A review of the peer-reviewed science demonstrates that endosulfan is both an endocrine disruptor and a neurotoxicant.<sup>11-13</sup> Numerous studies have consistently demonstrated that endosulfan behaves physiologically as an anti-androgen.<sup>14</sup> The effects of endosulfan are most pronounced in immature animals whose reproductive systems and brains are still developing.<sup>15,16</sup>

In its 2002 assessment, the U.S. Environmental Protection Agency (EPA) calculated that the cancellation of endosulfan would have negligible impacts on agriculture.<sup>17</sup> For example, cancellation on Florida tomatoes (approximately 34,900 lbs active ingredient annually) would incur a loss of only 0.02–0.7% of the total value of production. The impact on tobacco is similarly minimal. For cotton, the crop for which the most endosulfan is used, EPA determined that cancellation would incur a negligible loss of only 0.1–2.4% (\$216,000–\$3.8 million) of the total value of production.

We ask that the EPA cancel all uses of endosulfan without further delay, because it is persistent, bioac-

cumulative, and highly toxic. We support the petition of the Natural Resources Defense Council (NRDC) to ban endosulfan and revoke all tolerances.<sup>18</sup>

JENNIFER SASS, PH.D.  
SARAH JANSSEN, MD, PhD, MPH  
*Natural Resources Defense Council*

### **SUPPORTERS:**

*Note: Unless otherwise indicated, individual signatories' institutions are given for identification purposes only and do not constitute an endorsement on the part of the institutions of information contained in this letter.*

AMERICAN NURSES ASSOCIATION  
REBECCA M. PATTON, MSN, RN,  
CNOR, *President*  
*Silver Spring, MD*

CAL BAIER-ANDERSON, PHD  
*Health Scientist, Environmental Defense Fund, and Assistant Professor, Department of Epidemiology and Preventive Medicine*  
*University of Maryland*  
*Washington, DC*

TERRI ARTHUR, RN, BS, MS  
*Medical Education Systems, Inc.*  
*East Falmouth, MA*

EVELYN I. BAIN MED, RN, COHN-S,  
FAAOHN  
*Associate Director, Coordinator, Health and Safety Division*  
*Massachusetts Nurses Association*  
*Canton, MA*

JOHN BALBUS, MD  
*Director, Environmental Health Program, Environmental Defense Fund*  
*Washington, DC*

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KAREN A. BALLARD, MA, RN  
*Chair, Nurses Work Group, Health  
Care Without Harm  
Arlington, VA*

MATHS BERLIN, MD, PhD  
*Professor Emeritus of Environmental  
Medicine, Lunds University, Sweden  
Danderyd, Sweden*

ALISON BLEANEY, OBE MB ChB  
FACRRM  
*Doctors for the Environment  
Australia*

SUSANNA RANKIN BOHME, PhD  
*Deputy Editor, International Journal  
of Occupational and Environmen-  
tal Health  
Attleboro, MA*

KAREN BOWMAN, MN, RN, COHN-S  
*President, Washington State Associa-  
tion of Occupational Health Nurses  
Seattle, Washington*

KATHY BURNS, PhD  
*ScienceCorps  
Lexington, MA*

BARRY CASTLEMAN, SCD  
*Environmental Consultant  
Garrett Park, MD*

LIN KAATZ CHARY, PHD, MPH  
*Indiana Toxics Action  
Gary, IN*

THEO COLBORN, PHD  
*Professor, University of Florida,  
Gainesville  
Paonia, CO*

CARL F. CRANOR, PHD  
*Professor of Philosophy, University of  
California  
Riverside, CA*

RUPALI DAS, MD, MPH  
*Assistant Professor, Dept of Medicine  
Division of Occupational and  
Environmental Medicine  
University of California, San Francisco  
San Francisco, CA*

DEVRA DAVIS, PHD  
*Director, Center for Environmental  
Oncology  
University of Pittsburgh Cancer Institute  
Pittsburgh, PA*

RICHARD DENISON, PHD  
*Senior Scientist, Environmental  
Defense Fund  
Washington, DC*

JOSEPH DIGANGI, PHD  
*Senior Scientist, Environmental Health  
Fund  
Chicago, IL*

MARY ANNE DILLON, RN, BS  
*Brookline, MA*

MARYANN DONOVAN, PHD  
*Scientific Director, Center for  
Environmental Oncology  
University of Pittsburgh Cancer Institute  
Pittsburgh, PA*

THERESE DOWD, PHD, RN, CHTP  
*Associate Professor, The University of  
Akron  
Akron, OH*

PATTI DUGGAN RN, MS  
*Cambridge, MA*

DAVID EGILMAN MD, MPH  
*Clinical Associate Professor, Brown  
University,  
Editor, International Journal of Occu-  
pational and Environmental Health  
Attleboro, MA*

ARTHUR L. FRANK MD, PHD  
*Professor of Environmental and Occu-  
pational Health,  
Drexel University School of Public  
Health  
Philadelphia, PA*

ERICA FRANK, MD, MPH  
*President, Physicians for Social  
Responsibility  
Professor and Canada Research Chair,  
University of British Columbia  
Department of Health Care and  
Epidemiology  
Vancouver, British Columbia*

THOMAS P. FULLER, SCD, CIH,  
MSPH, MBA  
*Environmental Performance Group  
Boston, MA*

JOSEPH A. GARDELLA, JR., PHD  
*Professor of Chemistry, University at  
Buffalo, State University of New York  
Buffalo, NY*

ROBERT GOULD, MD  
*President, San Francisco Bay  
Area- Physicians for Social  
Responsibility  
Associate Pathologist, Kaiser  
Permanente Hospital, San Jose  
San Jose, CA*

LINDA GREER, PHD  
*Director, Health and Environment  
Program  
Natural Resources Defense Council  
Washington, DC*

SANDEEP GUNTUR, MD  
*Fellow, Occupational and  
Environmental Medicine  
University of California, San Francisco  
San Francisco, CA*

ROBERT HARRISON, MD, MPH  
*Clinical Professor of Medicine, Univer-  
sity of California, San Francisco  
San Francisco, CA*

RONALD B HERBERMAN, MD  
*Director, University of Pittsburgh  
Cancer Institute  
Vice-Chancellor of the University of  
Pittsburgh  
Pittsburgh, PA*

JAMES HUFF, PHD  
*Associate Director for Chemical  
Carcinogenesis  
National Institute of Environmental  
Health Sciences  
Research Triangle Park, NC*

PETER F. INFANTE, DDS, DRPH  
*Professorial Lecturer in Environmental  
Occupational Health  
School of Public Health, George  
Washington University  
Washington, DC*

TUSHAR KANT JOSHI, MD  
*Director, Occupational and Environ-  
mental Medicine Programme  
Centre for Occupational and  
Environmental Health, MAMC  
New Delhi, India*

JOSEPH LADOU, MD  
*Director, International Center for  
Occupational Medicine  
University of California School of  
Medicine  
San Francisco, CA*

PHILIP J. LANDRIGAN, MD, MSC  
*Professor and Chairman, Department of  
Community and Preventive Medicine  
Professor of Pediatrics  
Director, Children's Environmental  
Health Center  
Mount Sinai School of Medicine  
New York, NY*

MARIANN LLOYD-SMITH, PhD  
*Co-Chair, International POPs Elimination Network  
Senior Advisor, National Toxics Network  
NSW, Australia*

RON MELNICK, PhD  
*National Institute of Environmental  
Health Sciences  
Research Triangle Park, NC*

MICHAEL MCCALLY, MD PHD  
*Executive Director, Physicians for  
Social Responsibility  
Washington, DC*

DAVID MICHAELS, PhD, MPH  
*Director, The Project on Scientific  
Knowledge and Public Policy  
Research Professor and Associate  
Chairman, Department of Environmental and Occupational Health  
George Washington University  
Washington, DC*

ELIZABETH A. O'CONNOR, RN, BSN  
*Milton, MA*

NICOLAS OLEA, MD  
*Professor, Hospital Clínico, University  
of Granada  
Granada, Spain*

PHYSICIANS FOR SOCIAL RESPONSIBILITY  
USA

REBECCA M. PATTON, MSN, RN,  
CNOR  
*President, American Nurses Association  
Silver Spring, MD*

GERALD POJE, PHD  
*Former Board Member  
U.S. Chemical Safety and Hazard  
Investigation Board  
Fairfax, VA*

ROUTT REIGART, MD  
*Medical University South Carolina  
Charleston, SC*

BARBARA SATTTLER, RN, DRPH, FAAN  
*Director, Environmental Health  
Education Center  
University of Maryland School of  
Nursing  
Baltimore, MD*

JAMES SEWARD, MD MPP  
*Clinical Professor of Public Health,  
University of California, Berkeley  
Berkeley, CA*

TED SCHESSLER MD, MPH  
*Science Director, Science and  
Environmental Health Network  
Boston, MA*

DAVID SHEARMAN MB, CHB, PHD,  
PRCPE FRACP  
*Emeritus Professor of Medicine and  
Honorary Visiting Fellow,  
Department of Geography and  
Environmental Sciences, University  
of Adelaide  
Honorary Secretary, Doctors for the  
Environment, Australia*

MORANDO SOFFRITTI, MD  
*Scientific Director, European  
Ramazzini Foundation  
Cesare Maltoni Cancer Research Centre  
Bentivoglio, Italy*

GINA SOLOMON, MD, MPH  
*Senior Scientist, Health and  
Environment Program  
Natural Resources Defense Council  
Assistant Clinical Professor of  
Medicine, University of California  
San Francisco  
San Francisco, CA*

LENI G. URBANO, MSN, RN  
*Clinical Programs Consultant, Guam  
Nursing Services  
Chief Nurse, 724 Aeromedical Staging  
Flight  
Family Advocacy Nurse, 36 MDG  
Andersen Air Force Base  
Vice President, Guam Nurses'  
Association  
Guam*

TATJANA T. WALKER, RD, CDE  
*University of Texas Health Science  
Center at San Antonio  
School of Medicine, Office of the Dean  
San Antonio, TX*

DAVID WALLINGA, MD  
*Director, Food and Health, Institute for  
Agriculture and Trade Policy  
Minneapolis, MN*

DIANA ZUCKERMAN, PHD  
*President, National Research Center  
for Women and Families  
Washington, DC*

#### Notes

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