
To: NODA Comment Clerk, Water Docket [W-99-18]
From: Clean Water Network members, signatures attached
Re: Part 503 Sewage Sludge Use or Disposal Rule:
Docket Number [MC-4101, OW-2002-0019]

On behalf of the undersigned members of the Clean Water Network, we appreciate the opportunity to comment on EPA's Office of Water notice of data availability concerning dioxin, furan, and coplanar PCB limits in land applied sewage sludge.

Dioxin is one of the most toxic substances on earth. While its prevalence in the environment in general is decreasing, scientists find increasing evidence of the severity of its damaging human health and ecological impacts. EPA's analysis shows that land application of sewage sludges is one of the most significant remaining sources of dioxin exposure in the U.S. and will likely be an even more significant source in the future as other sources come under control. The average body burden of dioxin in the U.S. is already at a level that poses a cancer risk of 1 in 10,000 to the general population. That level of risk has generally been considered by EPA to pose an unacceptable risk. Current body burdens of dioxins also expose the U.S. populations to non-cancer risks that are so high that EPA has determined that it cannot even calculate a reference dose that would not involve "an appreciable risk of deleterious non-cancer effects during a lifetime." 67 Fed. Reg. 40554, 40569 (June 12, 2002). EPA has a legal obligation not to add to those already unacceptable risks by authorizing the land application of sludges containing dioxins in such a way that they enter the food chain and increase human exposure.

EPA calculates the incremental cancer risk to the highly exposed individual from exposure to dioxins in land-applied sludge as high as 2.4 in 10,000. 67 Fed. Reg. 40569. Based on our analysis of EPA's risk assessment, we believe that incremental risk to be understated by EPA. EPA calculates the incremental deleterious non-cancer risk to the highly exposed individual to be an increase of 28% at the 99th percentile.

EPA must use the best scientific information that it has available in this rulemaking. Irrespective of whether the Agency formally issues its Dioxin Reassessment, the recommendations contained in that multi-year scientific study represent the best thinking of the Agency's scientists about the human and ecological risks associated with dioxins. EPA's failure to use the most recent science, as opposed to risk rates that have been found by EPA's own scientists and the scientific community to be out-of-date and inaccurate, would be arbitrary and capricious.

EPA's ecological risk assessment, which EPA describes as "a simple, efficient indicator of the potential for adverse ecological effects at a high-end exposure," shows that there is a potential for adverse ecological impacts on osprey, American robins, belted kingfishers, and mink from biosolids with average as well as high end dioxin levels in sludges. EPA indicates that it considered a hazard quotient of greater than one to be above the

protective ecological benchmark, and the hazard quotient for these species ranged from a low of 2 (osprey at 50th percentile dioxin TEQ) to a high of 209 (mink at maximum TEQ dioxin in biosolids).

EPA is required under Section 405(d)(2)(D) of the Clean Water Act (CWA) to set minimum standards for sludge management that “shall be adequate to protect public health and the environment from any reasonably anticipated adverse effects of each pollutant.” 33 U.S.C. 1345(d)(2)(D). The CWA contains no exception to this mandatory duty of EPA to set standards that are adequate to protect both public health and the environment. EPA’s human health risk assessment and ecological risk assessment document the need for regulatory controls to meet this legal standard.

To meet its statutory obligation in this rulemaking, we urge EPA to minimize the amount of additional exposure to which the U.S. population is exposed from land applied sludges by: (1) setting a protective numeric effluent limitation on dioxins (including furans and PCBs) in land applied sludges; (2) disallowing land application above that numeric limit; (3) requiring frequent periodic monitoring to identify sludges that contain dioxins that exceed that limit; (4) requiring management practices including prohibition of application to pastures to lessen human health exposure to sludges in which dioxins are found, but have not yet exceeded the numeric effluent limitation; and (5) requiring each publicly-owned treatment works (POTWs) that produce sludges in which dioxins are found to have a pollution prevention component of its pretreatment program specifically directed at reducing the amount of dioxins in sludge.

We urge EPA to include mandatory monitoring requirements in the final rule as well. Voluntary monitoring programs are ineffectual. Those most likely to have a problem are least likely to monitor. Annual monitoring is too infrequent to provide the regulators or the public with any assurance that the sludge is meeting with regulatory standard. More frequent monitoring, geared toward those conditions under which the treatment works or other sewage sludge preparers have historically had the highest rates of dioxin TEQ, is necessary.

The limitation of Round 2 regulations to only dioxins is not acceptable. There are numerous additional chemicals present in sludges that must be assessed for risks posed to human and environmental health. EPA needs to undertake an evaluation of current concentrations of chemicals in sludges from all available sources of data. Where a lack of data makes it infeasible to conduct a risk assessment, additional data needs to be collected. Particular attention must be paid to persistent bioaccumulative toxic compounds. For such chemicals, when a risk assessment cannot be conducted, the precautionary principle should be adopted.

Finally, while the revised technical support document is a significant improvement over the previous risk assessment document, there are numerous non-protective assumptions and calculations. For example, various exposure routes are not considered including dermal exposure, simultaneous inhalation and breast milk ingestion for infants, and fish consumption from an on-farm pond. In addition, there is an inconsistent use of

probabilistic and deterministic assumptions and some of the deterministic point estimates used are average values or values not reflecting a reasonable maximum exposure. Concentrations of dioxins in soils resulting from land application of sludges is a critical parameter. Due to assumptions regarding depth of incorporation into the soil and use of highly speculative models of erosion and dispersion, the calculated soil concentrations are low and would not represent a reasonably conservative (protective) estimate.

If the Office of Water wants the support of the environmental community in promoting land application of sewage sludges, standards must be set that will be protective of human health and the environment whether the sludges are applied to cropland or to suburban yards and gardens. We urge that you re-evaluate not only this proposal, but all others applicable to land applied sewage sludge to ensure that they are consistent with those proposed uses and that all pollutants in sludge that pose a risk of human or ecological harm are regulated.

Thank you for considering these views.

Respectfully,

Gershon Cohen, Campaign to Safeguard America's Waters / Earth Island Institute, AK
Dan Murchison, Chilton Pride Inc., AL
Kay Friedlander, Alabama Environmental Council Jubilee Chapter, AL
Penny Newman, Center for Community Action and Environmental Justice, CA
Ruth Gravanis, Treasure Island Wetlands Project, CA
Laura Hunter, Environmental Health Coalition, CA
Alan Levine, Coast Action Group, CA
Debbie Sease, Sierra Club, DC
Lyman Welch, Mid-Atlantic Environmental Law Center, DE
Marion Hillard, Florida Federation of Garden Clubs, FL
Glenn Moody, Green Party of West Palm Beach, FL
Howard Solomon, Outdoor Adventures, FL
Skelly Holmbeck-Pelham, Upper Chattahoochee Riverkeeper, GA
Keith Parsons, Sierra Club Georgia, GA
Muffy Harmon, Des Moines Founders Garden Club, IA
Tim Kautza, National Catholic Rural Life Conference, IA
Kathy Andria, American Bottom Conservancy, IL
James Jones, East St. Louis Community Action Network, IL
Jane Fuller, Sierra Club Hoosier Chapter, IN
Tom Neltner, Improving Kids' Environment, IN
Rae Schnapp, Hoosier Environmental Council, IN
Richard Hill, Save the Valley Inc., IN
Monique DeGiorgio, Menomonee Valley Partners, Inc., WI
Jason Fizell, Kaw Valley Heritage Alliance, KS
Tom Fitzgerald, Kentucky Resources Council, KY
Scott Vander Ploeg, Tradewater/Lower Green Watershed Watch, KY
Tina Roback, Salt River Watershed Watch, KY
Judith Petersen, Kentucky Waterways Alliance, KY

Nancy Hirschfeld, Informed Choices, LA
Mary Marsh, Maryland Conservation Council, MD
Joseph Payne, Friends of Casco Bay, ME
Cyndi Roper, Clean Water Action Michigan, MI
Karen Knudsen, Clark Fork Coalition, MT
Hope Taylor-Guevara, Clean Water for North Carolina, NC
Caroline Snyder, Citizens for a Future New Hampshire, NH
Charles and Helen Shields, NH
John and Lara Saffo, NH
Bill Sheehan, Hackensack Riverkeeper, NJ
Hugh Carola, The Fyke Nature Association, NJ
Douglas O'Malley, New Jersey PIRG, NJ
Sandy Lawson, Wanaque REACH, NJ
Marie Curtis, New Jersey Environmental Lobby, NJ
Joann Florida, Mountain Preservation Society, NJ
George Howard, New Jersey State Federation of Sportsmen's Clubs, NJ
David Pringle, New Jersey Environmental Federation, NJ
Andrew Riehl, Hunterdon Coalition, NJ
Robert and Roberta Grambor, NJ
Bob Moss, NJ
Brian Shields, Amigos Bravos, NM
Caroline DuBois, Action for Long Island, NY
Jennifer Wilson-Pines, North Shore Audubon, NY
Samuel Sage, Atlantic States Legal Foundation, NY
Manajo Greene, Hudson River Sloop Clearwater, NY
Daniel Melcher, Audubon Society of Greater Cleveland, OH
Nancy Raeder, Keepers of the Duck Watershed, OH
Nancy Raeder, Concerned Citizens Committee of SE Ohio, OH
Nancy Raeder, The Ohio Family Farms Coalition, OH
Sue Marshall, Tualatin Riverkeepers, OR
Peter Lavigne, Rivers Foundation of the Americas, OR
Caroline Farrell, Center on Race, Poverty, and the Environment, CA
Sarah Peisch, Centro de Accion Ambiental, PR
Bunny Beeson, Wildlife Action, SC
Danielle Droitsch, Tennessee Clean Water Network, TN
Jeanne Gramstorff, ACCORD Ag. Inc., TX
Lori Fischer, Lake Champlain Committee, VT
Melisaa Scanlan, Midwest Environmental Advocates, WI
David Zaber, Habitat Education Center, WI
Todd Ambs, River Alliance of Wisconsin, WI
Donald Littner, WI
Steve Jones, Wyoming Outdoor Council, WY