

**From:** Tracey Easthope [mailto:tracey@ecocenter.org]  
**Sent:** Tuesday, May 02, 2006 10:16 PM  
**To:** Frumkin, Howard (ATSDR/OD)  
**Cc:** Yarbrough, Alan W. (ATSDR/OD/HAC); Tracey Easthope  
**Subject:** ATSDR 1,000 ppt dioxin soil standard: Letter from concerned citizens, environmental groups

May 2, 2006

Howard Frumkin, M.D., Dr.P.H, FACP, FACOEM  
Director, National Center for Environmental Health  
Agency for Toxic Substances Disease Registry

Dear Dr. Frumkin,

We are writing on behalf of the undersigned organizations to officially request that the ATSDR discontinue referencing and using the 1,000 ppt "action level" for dioxin in soils, as referenced in the *1997 ATSDR Policy Guidelines for Dioxins in Soil*, and notify the public of such action.

While your tenure has just begun, this issue has festered for many years. We hope you will be able to give this issue your attention in the near term. Community and environmental organizations have repeatedly been assured that the ATSDR is reviewing the continued use of this level and that some clarification will be issued. More than a year later, no action has been taken.

This situation creates enormous confusion at the community level where the 1,000 ppt level is regularly referred to as a health-protective soil cleanup standard, thereby undermining state-derived soil cleanup standards for dioxin. We believe this confusion undermines public confidence in regulatory agencies. Attached please find numerous specific, recent and disturbing examples of the misuse of the 1,000 ppt action level in public discussions. We believe the effect of this confusion is to frustrate and delay attempts to protect public health. We believe your agency is charged with providing clear, scientifically valid and protective public health information. The 1,000 ppt "action level" fails that test.

The 1,000 ppt level was derived from an analysis of a study of TCDD-induced livers tumors in rats (Kociba et al., 1978), that was published by Kimbrough et al in 1984. That paper concluded that residential soil levels greater than 1 ppb (1,000 ppt) pose a level of concern. The paper recommended that it be used as a level to begin consideration of action to limit human exposure for contaminated soils. The 1 ppb (1,000 ppt) level also represented the limit of detection at the time, and it has been suggested that that influenced its selection.

EPA used this analysis to support their Dioxin Residential Soil Clean-up Policy. The EPA used the upper end of the target risk range (10<sup>-4</sup>) of the cancer slope factor to set the 1 ppb (1,000 ppt) level. For consistency, ATSDR referred to this level as an Action Level that would trigger efforts to reduce exposure. We believe the derivation of this number did not even follow the EPA's own standard risk assessment process and assumptions. The rationale for using the upper end of the risk range is not clear. Further, many Superfund cleanups have established soil cleanup levels well below the 1,000 ppt standard. Most recently, the Record of Decision on the Escambia SF site in Pensacola, FL established a cleanup goal for residential soils at 30 ppt.

According to one ATSDR official, the "ATSDR's Dioxin Action Level is neither an initial screening level for dioxins in soil, nor a concentration that defines a public health hazard, nor a level that would result in adverse health effects." What then is it?

States however, are charged with developing **health protective** cleanup levels. Many states have used the Kociba study, a 1990 update, and other studies to derive more protective cleanup standards by using more protective risk ranges (see the attached list of existing state-level dioxin soil cleanup levels).

Community groups have previously detailed complaints about the inappropriate use of this number, and have, on numerous occasions, shared these concerns with the ATSDR. The Dow dioxin contamination offers a case study that illustrates the continued misuse of this number. The 1,000 ppt standard has been repeatedly referenced in news articles (see below) and contrasted with the state standard of 90 ppt for residential soils. News reports repeatedly confuse the purpose of these differing standards, and often conclude that there is regulatory inconsistency and uncertainty. For instance, last month, Michigan legislators proposed bills to weaken Michigan's cleanup standards and referenced ATSDR's 1,000 ppt action level. The following appeared in the Midland Daily News (Midland, Michigan) on April 11, 2006.

*For dioxin, ATSDR has a cleanup action level set at 1,000 parts per trillion, while the state of Michigan has residential contact criteria of 90 parts per trillion. "When you consider the scientific expertise available at ATSDR versus the scientific expertise available at our Michigan DEQ, it seems to me we ought to rely on the expertise of the federal government," Moolenaar [Michigan state legislator] said. Michigan Department of Environmental Quality spokesman Bob McCann said the comparison is not an equal one. The ATSDR number is not a level that is protective of public health, but the state's is. "It's not meant for a long-term cleanup number," he said.*

This continued confusion does not serve the public interest, and ultimately threatens public health by creating uncertainty and delay in cleanups.

Recently, this issue came before the Board of Scientific Counselors for review. We noted with interest that the Chlorine Chemistry Council made a presentation. Citizen and environmental health advocates did not attend because groups didn't happen to see the notice of this item on the agenda, and therefore did not have an opportunity to present their views to the group. This is unfortunate, and follows a long history of industry influence over dioxin policy at the national level that we believe has compromised the integrity of our nation's dioxin standards.

We urge you to prioritize this item for immediate action in order to prevent continued confusion and continued delay in cleanups. Those delays can result in increased exposures to dioxin. We look forward to your early response to this letter.

Sincerely,

Ecology Center  
Ann Arbor, Michigan

Lone Tree Council  
Saginaw, Bay City, Michigan

Tittabawassee River Watch  
Freeland, Michigan

Citizens for Alternatives to Chemical Contamination  
Lake, Michigan

Please send any response to:  
Tracey Easthope, MPH  
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RECENT EXAMPLE OF NEWS REPORTS THAT SUGGEST CONFUSION ABOUT THE 1,000 PPT DIOXIN SOIL "ACTION LEVEL"

Midland Daily News (Midand Michigan) coverage of NEW proposed legislation

Lawmakers propose trio of bills to deal with dioxin issue

[Kathie Marchlewski](#), Midland Daily News 04/11/2006

Area lawmakers are trying, trying, trying again to pass legislation they say would protect residential property values and keep science in the forefront as the state and The Dow Chemical Co. work to resolve the issue of local dioxin contamination.

State Rep. John Moolenaar, and Sens. Tony Stamas and Mike Goschka, R-Brant, are proposing a trio of bills similar to one deemed the Homeowner Fairness Act and vetoed by Gov. Jennifer Granholm at the end of 2005.

The latest package, in various stages of introduction, addresses three issues, each separately.

Stamas' contribution proposes that before a privately owned, residential parcel is deemed a "facility" -- that is, an extension of a contaminated site that by state law is required to undergo remediation -- it first must be tested to confirm contamination.

New to the proposal from last year's rendition is Moolenaar's portion. He proposes that cleanup criteria for cancer-causing substances continue to be derived under the state's existing method, unless the Agency for Toxic Substances and Disease Registry has a different one. In that case, the federally prescribed level would be used instead.

**For dioxin, ATSDR has a cleanup action level set at 1,000 parts per trillion, while the state of Michigan has residential contact criteria of 90 parts per trillion.**

**"When you consider the scientific expertise available at ATSDR versus the scientific expertise available at our Michigan DEQ, it seems to me we ought to rely on the expertise of the federal government," Moolenaar said.**

**Michigan Department of Environmental Quality spokesman Bob McCann said the comparison is not an equal one. The ATSDR number is not a level that is protective of public health, but the state's is. "It's not meant for a long-term cleanup number," he said. "They use that number as a cleanup level."**

In Goschka's portion of the proposal, the DEQ also would be required to use data from peer-reviewed bioavailability and human exposure studies, if available, in remedial action plans and in the development of areawide or site-specific cleanup criteria.

For the Saginaw Valley and dioxin, that would include incorporating results from dioxin-related studies under way by the University of Michigan and by the University of Missouri.

Under the proposal, an entity liable for cleanup also would be allowed to submit for consideration information from studies that have not been peer-reviewed.

Moolenaar hopes the most recent package of bills will make it past the governor's desk. The last passed successfully through both the House and Senate with bipartisan support, but died after her veto.

"She never gave a clear explanation of why she opposed the homeowner fairness bill. We've been asking for that," Moolenaar said. "It's been disappointing to this point. This hopefully allows us to reach a positive, constructive resolution."

DEQ officials and the governor had opposed the bill, saying it would delay cleanups across the state and make them more expensive, hindering economic development.

*@Midland Daily News 2006*

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**The Bay City Times**  
**August 27, 2004**

**Thanks for EPA support, now get numbers to agree**

Friday, August 27, 2004

A U.S. Environmental Protection Agency report on dioxin is about as clear as the cloudy waters of the Tittabawassee and Saginaw rivers.

The bottom line, says one Michigan Department of Environmental Quality spokesman, is that the EPA will be "more openly supportive" of the state's efforts to address dioxin contamination in the two rivers.

Ah.

What really would be helpful is if the state and EPA could actually work together to address one gnawing need in this debate over dioxin.

Dow Chemical Co., the main name blamed for the contamination, has said that the state's standard is too high for determining when cleanup of dioxin is necessary.

**The state says 90 parts per trillion. The EPA uses a much more lenient standard, of up to 1,000 parts per trillion.**

**Before this fuzzy talk of support among government agencies goes much further, they ought to get their numbers to agree.**

**Until they do, Dow Chemical can continue to insist that the EPA's cleanup standard should apply.**

And the state will still dig in its heels with its own requirement. They will get nowhere until they clear up these muddy numbers.

We appreciate the EPA's "open support," whatever that means.

But we'd like to see the state and feds agree on their numbers, too.

- Our View is the editorial opinion of The Bay City Times, as determined by the newspaper's editorial board, which includes the editorial page editor, the editor and the publisher.

#### 2004 Michigan House Bill 5963 (Require federal dioxin cleanup standards )

\* Introduced by Rep. John Moolenaar on June 1, 2004, to require that hazardous material cleanups involving the chemical dioxin use the federal cleanup standards. The Department of Environmental Quality has proposed testing the soil on some 21,000 properties and 11,000 homes in the Midland and Saginaw area for the presence of dioxin, **using a 90 parts per trillion standard that is reportedly 10 times more stringent than the standard imposed by federal environmental laws. The presence of more than this amount would require that the soil be removed from a particular property.**

\* Referred to the House Government Operations Committee on June 1, 2004.

#### 2004 Michigan Senate Bill 1276 (Require federal dioxin cleanup standards )

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\* Introduced by Sen. Tony Stamas on June 1, 2004, to require that hazardous material cleanups involving the chemical dioxin use the federal cleanup standards. The Department of Environmental Quality has proposed testing the soil on some 21,000 properties and 11,000 homes in the Midland and Saginaw area for the presence of dioxin, using a 90 parts per trillion standard that is reportedly **10 times more stringent than the standard imposed by federal environmental laws.** The presence of more than this amount would require that the soil be removed from a particular property.

\* Referred to the Senate Natural Resources & Environmental Affairs Committee on June 1, 2004.

#### And this from the City of Midland, Michigan

##### **"Interim Response Activities Decided**

##### **1000 ppt Versus 90 ppt**

In regard to the IRAs, MDEQ had previously announced the intent to undertake soil studies in four residential areas of Midland using a criteria of 90 parts per trillion (ppt) to determine health. **The City of Midland, and over 1500 of its residents, had objected to this criteria as being unscientifically calculated and much lower than necessary to protect human health.**

Under the "framework" agreement, the number of Midland neighborhoods to be affected by interim response activities has been reduced to three and **the residential contact criteria to be used is 1000 ppt.** This is the level of concern used by the Agency for Toxic Substances and Disease Registry (ATSDR), a federal agency associated with the Centers for Disease Control and Prevention in Atlanta, GA.

The City believes the 1000 ppt IRA level is protective of human health and agrees that properties exceeding this amount pose a risk that should be mitigated."

##### **Dioxin Soil Cleanup Standards in Different States**

Oregon, 3.9 ppt

Massachusetts, 4.0 ppt

West Virginia, 4.1 ppt

North Carolina, 4.1 ppt

Georgia, 4.8 ppt

Washington, 8.7 ppt

Florida, 7.0 ppt

Iowa, 14 ppt

Arizona, 38 ppt

Michigan, 90 ppt

Pennsylvania, 120 ppt  
Minnesota, 200 ppt