

US EPA ARCHIVE DOCUMENT

### Supplemental Comments on the April 7 Meeting

At the April 7 meeting, the US EPA Region 5 released an information sheet entitled, **"EPA Scientists Taking Close Look at Proposed PCB Cell,"** dated April 2009. Review of this sheet which was prepared by Gonzales and Johnson of shows that it also provides unreliable and inadequate information on the long-term protection offered by the proposed CWU at the Clinton Landfill. A number of specific statements that are of concern are quoted and discussed below.

In the section, ***"Company supplies more information"***:

*"The company discovered about half of the community water wells within 15 miles of Clinton Landfill #3 draw their water from the Mahomet Aquifer while the other half pump from another source of underground water."*

How many of those wells are in the shallow groundwater aquifer that can most readily be polluted by the releases that will eventually occur from the CWU? This needs to be evaluated.

*"An underground supply of fresh water is called ground water in environmental terms. The company noted the city of Clinton municipal wells and another well field at Weldon Springs State Park have operated safely even though they sit within two miles of Clinton Landfill #3."*

Even if there were no pollution detected in existing water wells down-groundwater-gradient from the existing Clinton Landfill, this is not a reliable indication that those or other wells will not be polluted at some time during the very long period of time that the CWU will be a threat to pollute groundwater.

*"The company also studied two other operating PCB disposal facilities, one located in Michigan and the other in Utah. Clinton Landfill looked at "leachate" data from the two facilities. Leachate is water that collects contaminants as it trickles down through a waste field. The seepage from the Michigan and Utah facilities showed extremely low levels of PCBs, according to Clinton Landfill."*

While the PCB pollution in other PCB landfills is characterized as "low-levels" of PCBs, its presence is, in fact, an indication that the PCBs in a landfill setting are somewhat mobile. It should be understood that only very small amounts of PCBs can cause a water supply to be a threat to cause cancer in those who drink the PCB-polluted groundwater.

In the section, ***"Landfill promises extra precautions"***:

*"Although not specifically required by landfill regulations, Clinton Landfill Inc. promises to install two thick layers of special plastic liner and a liquid collection system at the bottom of the PCB cell. To provide even more protection, the company told EPA it will line the very bottom of the landfill with a densely compacted layer of clay three-feet thick along with a third sheet of impenetrable plastic."*

What the company and the US EPA did not state is that the so-called “thick” plastic sheeting liner is really a thin layer of plastic that will deteriorate over time and eventually fail to serve as an effective barrier preventing PCBs and other pollutants from leaving the landfill on its way to polluting groundwaters. Also, the US EPA did not inform the public that with the allowed 1 ft of head, the 3-foot-thick clay layer can be penetrated in less than 10 years.

*“Clinton Landfill Inc. will also cap its landfill to prevent rain and snow melt from soaking through the waste.”*

By this statement, the US EPA is asking the DeWitt County officials and the public to believe that the landfill cover for the CWU will prevent water from entering the wastes for as long as wastes in this landfill will be a threat to generate leachate when in contact with water. This is a highly misleading representation of the expected performance of CWU landfill cover.

The April 2009 US EPA information sheet on the proposed Clinton Landfill CWU is not objective, but rather is slanted in favor of the landfill development. Rather than presenting information in a disinterested manner, the US EPA’s language and selected “information” advocates in favor of the landfill to convince DeWitt officials and public that it should not oppose the development of this landfill. As discussed above and previous comments, considerable amounts unreliable and inadequate information are being offered by the landfill proponents on the long-term ability of the proposed CWU landfill to prevent releases of hazardous and deleterious chemicals that are a threat to the water resources of the area.

#### **Additional Comments on Johnson’s Statement at the April 7 Meeting**

Johnson stated that TSCA regulations do not require local-agency and public approval for developing a Chemical Waste landfill for PCBs in an area. This means that the US EPA can impose a chemical waste landfill on a local community as part of its assessment that there is need for an area for disposal of PCB wastes, and as part of its determination that the threat of failing to remove the PCB wastes from an area is of greater significance than the threat of groundwater pollution at the site it selects for landfilling of the wastes. This is part of the Agency’s “balancing” environmental protection at the expense of adverse impacts to those in the vicinity of the chemical waste landfill.

Johnson’s statement about there being 150 ft to the water table ignores upper aquifer used by farmers. It is that upper aquifer that will be polluted first.

Johnson’s repeated claims that the 150 ft of clay under the aquifer before the Mahomet aquifer is encountered provides protection of the groundwater from pollution by leaks from the landfill does not consider the rate at which water/leachate can penetrate through this layer of clay. If the clay has a permeability of  $10^{-6}$  cm/sec, water can pass through the 150 ft of clay in about 30 years. There is need for more information on the hydraulic

conductivity of the clay layer. The groundwater hydrologist that you may be using can possibly provide this information.

Johnson overstated the ability of the proposed monitoring wells to detect groundwater pollution. The initial pollution plume will be a narrow plume. J. Cherry of the University of Waterloo in Canada, an internationally known expert on groundwater pollution issues, has discussed this situation. A summary of his publication as well as of others are presented in my "Flawed Technology" review.

Johnson claimed that there is a lack of leaching of PCBs. His statement on the East St. Louis pollution of groundwater by Monsanto in the American Bottom area illustrates that groundwater pollution by PCBs can occur in high permeability aquifers. Clays only slow the pollution of an aquifer.

Johnson claimed that 10 to 30 ft of MSW on top of PCB wastes provides additional protection. Just the opposite could occur; the MSW leachate would help mobilize PCBs.

Johnson's claims that the clay pans are a barrier to pollution and recharge of surface water to the water table needs to be investigated by dating the age of the groundwater.

Johnson's statement that cut-off walls could be used to stop migration of polluted groundwater fails to acknowledge that cut-off walls require perpetual operation and care to be effective. Who will pay for the perpetual care of the cut-off wall? Further, cut-off walls are not always effective.

If the US EPA does not grant a permit for the CWU, could Area Waste Disposal take legal action against the US EPA, appeal the denial of the permit?

