United States
Environmental Protection
Agency

EPA Scientists Taking Close Look at Proposed PCB Cell

Clinton Landfill #3 Permit Application

DeWitt County, Illinois — April 2009

U.S. Environmental Protection Agency scientists studying a permit application from the operators of Clinton Landfill #3 consider the safety of a large regional aquifer to be the deciding factor in their deliberations. Clinton Landfill Inc. of Peoria applied for a permit in 2007 to build a new disposal cell at the currently operating Clinton Landfill #3 site located two miles south of Clinton on state Route 51. The new cell would hold PCB (polychlorinated biphenyl) waste.

The landfill cell and larger facility are located directly over a major aquifer that is tens of miles wide and hundreds of miles long underlying virtually all of DeWitt County. That feature, the Mahomet Valley Aquifer, is used extensively throughout central Illinois for drinking water. Local residents, officeholders, and environmental and community groups oppose the permit application over worries the PCBs in the proposed disposal cell will leak into the aquifer.

Preliminary geological investigation by EPA staff indicates the new cell will meet technical requirements contained in federal law for proper disposal of PCBs. EPA geologists also believe a 150-foot thick layer of clay protects the aquifer from surface contamination. The geologists note this extensive clay “pan” is relied upon by central Illinois municipalities, industries and farms to safely protect their drinking water supplies from pollution that may make its way into the soil.

New information on the potential impact of the cell on ground water was received from the applicant earlier this year addressing some of the public concerns. Currently Region 5 is conducting a complete review of the Clinton Landfill #3 permit application to ensure the design and operation of the proposed waste cell meets all applicable federal regulations for PCB disposal. The federal law that governs these kinds of permit applications is called the Toxic Substances Control Act (TSCA). A text of the law is available online at http://www.epa.gov/lawsregs/index.html.

EPA officials point out federal law requires the health and safety of drinking water supplies to be the top priority of regulators considering hazardous waste permits. But EPA also recognizes the importance of disposing of and containing hazardous waste such as PCBs in a safe location where they can no longer harm people and wildlife. The landfill already accepts other kinds of regulated solid waste that have been successfully contained with no danger to the public or the aquifer.

The decision-making process will take several more weeks. If EPA gives preliminary approval to the permit application then a 90-day public comment period will be announced. During that time a public hearing will be scheduled to give people and groups an opportunity to provide their input. That input will then be reviewed and responded to before a final decision.

For more information

These EPA team members can be contacted for questions or comments about the proposed PCB disposal cell at Clinton Landfill #3:

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Read the files:
An official document repository on the Clinton Landfill permit application has been set up at the Clinton Public Library, 310 N. Quincy St.

Company supplies more information

As mentioned above, in response to several questions from EPA Clinton Landfill Inc. provided additional information earlier this year about its PCB permit application in an attempt to answer public concerns. In particular, the Agency wanted Clinton Landfill to focus its research on how the Mahomet Aquifer and nearby municipal water wells might be affected by a PCB disposal cell.

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. 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.

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. And the company promised all leachate found at the bottom of its landfill will be collected and treated.

Another safety feature protecting the Mahomet Aquifer, the company said, involves the chemical properties of PCBs. The compound does not dissolve in water easily and is not very mobile. When PCBs are released into waterways they sink into the sediment (mud) and can lie there for decades. Loose in the environment like that, PCBs cause havoc in the food chain because they are ingested by fish which in turn are eaten by birds, animals and humans. Clinton Landfill pointed out it is much safer for the environment and human health to contain PCBs in a special disposal cell.

Additional precautions at Landfill

Although not specifically required by landfill regulations, Clinton Landfill Inc. will install two layers of geomembrane liners and a leachete (liquid) collection system at the bottom of the PCB cell. Additionally as a further protective measure, the company 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 membrane.

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