ILLINOIS POLLUTION CONTROL BOARD August 5, 1982

WASTE MANAGEMENT OF ILLINOIS, INC.,)
Petitioner,)
v.) PCB 82-55
BOARD OF SUPERVISORS OF TAZEWELL COUNTY,)
Respondent.)

DISSENTING OPINION (by J.D. Dumelle):

My reasons for dissenting are: the obviously inadequate legal notice regarding special wastes; the lack of due process for East Peoria in its request for a hearing before this Board; the majority's position on prohibiting the County from considering technical "subsurface" issues; and the admittedly "leaky landfill" to be built over a major water supply aquifer.

The printed notice (Joint Exhibit 6) is clearly deficient in telling the public that special wastes were to be considered for disposal at the site under review. All the notice says is "for location approval of a solid waste disposal facility ... will be used as a regional landfill." This notice, prepared by Waste Management of Illinois, Inc. does not mention that special wastes are to be disposed of at the site.

The County Board Chairman, in his opening statement on February 18, 1982 describes the application as desiring approval to dispose of "nonhazardous household, industrial and special wastes." This statement does not cure the printed notice defect. Some of the public may have relied upon the printed notice and thus not attended the hearing. The majority in its opinion gives a warning to future applicants to be more precise in notices. That does not cure the legal defect in this case. At the very least, I would have disallowed permission to dispose of special wastes at this site because of failure of the printed notice to inform adequately.

The second defect in this proceeding was the majority's failure to grant East Peoria a hearing before the Board. In the Board's hearing on July 1, 1982 the Hearing Officer only allowed intervention at the end of the hearing. Thus East Peoria, a city of 22,083, could not present any evidence at all because of this late ruling on intervention. Its evidence might have dealt with the adequacy of the record or the fundamental fairness of the County proceedings. Sufficient time (17 days) remained for a hearing (see July 21 and July 26 orders and the dissent filed by me). The acceptance of the offers of proof by the majority is not sufficient.

The third problem in this case is the majority's reading of legislative intent to leave technical (translated as "subsurface") matters to the Illinois Environmental Protection Agency and to exclude the County from considering them. I do not read criteria #2 in P.A. 82-682 as saying that. Indeed a plain reading shows the opposite intent. What could be plainer than "The facility is so designed, located and proposed to be operated that the public health, safety and welfare will be protected" (underlining added)?

The leading case in Illinois to date of errors in landfill "design and location" (to paraphrase the criterion cited above) is the Wilsonville landfill. Here, a site was approved over abandoned mine shafts. That fact is certainly germane to approval or disapproval of a site. Yet the majority's ruling on legislative intent would prohibit an elected County Board from considering subsurface geology whether involving abandoned mine shafts or earthquake faults or nearby potable water aquifers or the safety and adequacy of a clay layer.

It can be argued that a County Board is not sufficiently expert in hydrology and soils to decide issues concerning these areas. At the same time, however, the County Board members are charged with protecting public health and certainly with protecting their county's major water supply. Somewhere in the political process the elected layman has to make technical decisions if all of us are not to be governed by "experts".

Lastly let us analyze those "subsurface" factors. The Waste Management landfill will leak into the Sankoty aquifer. Joint Exhibit 13A gives the time period for this to happen (Appendix IV). Using a leachate percolation rate of 0.206 feet per year it would take 50 years to penetrate the 10 feet of clay. And using 1.03 feet per year it would take 90 more years to penetrate the average 90 feet of soil below the clay layer and above the Sankoty aquifer. That totals to 140 years.

Two questions arise. How reliable are these time estimates? How "clean" will be the leachate after attenuation and cationic exchange by the clay layer?

The Waste Management witness, Dr. Murray M. McComas, an expert hydrogeologist, testified on Feb. 18, 1982 at the County hearing. He increased the flow rate through the clay layer by 50% over that estimated by Patrick Engineering, Inc. in Joint Exhibit 13A. He used 0.3 feet per year instead of 0.206 feet per year (R.93). The time necessary to penetrate 10 feet of clay then becomes 33 years and not the 50 years referred to above. Dr. McComas then states that the next layer to be encountered is a "buried silt zone" with a transmission velocity of 0.002 feet per year (R.95). But Patrick Engineering had put it at 1.03 feet per year or 515 times more porous! These major discrepancies by experts from the same side are not explained.

A landfill above a major potable water supply ought to be "fail-safe". If we use Dr. McComas' figure of 0.3 feet per year as the worst case condition we are talking about 33 years to penetrate 10 feet of clay. But the 10 feet of clay is the "natural clay" layer. It is not placed by man. A sand lense could occur in the bottom and negate the 10 feet of protection. Testimony by a local consulting engineer, Robert M. Randolph, points this out (R.203). If a sand lense has only two feet of clay over it, then using Dr. McComas' 0.3 feet per year rate, the bottom integrity would be breached in 6.7 years, not 33 years! How much protection would be given by the layer below the clay also depends upon its integrity with reference to the sand lense problem. The Patrick Engineering use of "average" depth of 90 feet is not correct. The least depth (50 feet) should be used. In summary the "140 year" figure is probably much too generous. Leakage into the Sankoty Aquifer could well occur early in the 21st century.

The other question posed was the degree of attenuation of organics and metals by a clay layer. Dr. McComas testified that a layer of two feet is "more than adequate" for most landfills anywhere in the country (R.103). However, the technical literature has recently begun to discuss the deleterious effects upon clay of certain organic solvents. Will the clay liner resist this action and continue to attenuate or will it simply become much more porous? Will special wastes, which include oily sludges, metal fines, and hot lime, overwhelm the attenuation capacity of the clay? Certainly the County Board would wish to consider these "subsurface" factors when making its decision.

Until other methods of refuse disposal such as recycling and incineration are better developed, landfills will be needed. But they should receive full scrutiny (surface and subsurface) by elected public officials if they are to protect their constituents. And I believe that is the statutory intent.

J.D. Dumelle, Chairman

Illinois Pollution Control Board

I, Christan L. Moffett, hereby certify that the above dissenting opinion was filed on 672 day of Munual 1982.

Christan L. Moffett//Clerk
Illinois Pollution Control Board