

US EPA ARCHIVE DOCUMENT

Clinton Chem. Waste Mgt. Landfill
TSCA Unit

Monitoring well

Worst Possible Case Leak:
500 PPM Model

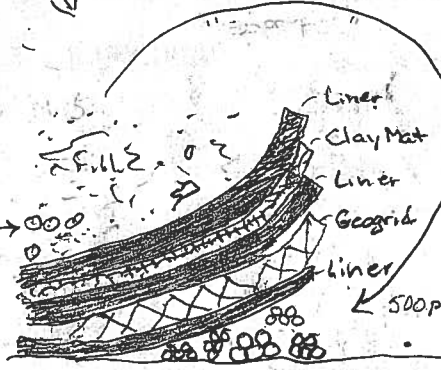
TSCA
Factor of
Safety

Running
Total

U.S. EPA Region 5
Mahomet Aquifer /
Clinton EWM LF Unit
Contaminant Barrier Mod.
Draft
S.M. Johnson, Geologist 2/19/09

0.5-5 PPM
in leachate

Pcb



Engineered

1000 yrs

Pcb

Natural clay pan

4' = 1 TSCA "layer"

20'
5'

5x
- 1x QA discount
4x

Sentinel Sand

5'

1x

Moist

older ice age

Natural
clay
pan

4' / 150'
~ 37 layers

37x
- 1x QA discount
36x

55x ✓ (150x-1,500x)

no flow 1000 yrs/layer
55x layers (150-1500x)

55,000 yrs worst case scenario

(150,000 - 1.5 Million yrs) suggested case

limit of geological predictability ~ 10,000 yrs
(at Clinton)

State Calc: 1ppb / 25' / 134 yrs

25 / 175
7
134
x 7
938 yrs

Mahomet

net

So: No Pcb Molecules reach Mah. for 50k yrs
"a few" molecules possible in million yrs
State says maybe 1ppb escapes L.F. in 134 yrs
reaches "Sentinel wells"