

September 27, 2010

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SEP 29 2010
STATE OF ILLINOIS
Pollution Control Board

PC# 17

IPCB
James Thompson Center
100 W. Randolph Suite 11-500
Chicago, IL 60601

Re: Case No. PCB2010-103—500 acre expansion of DeKalb County Landfill and acceptance of waste from 16 additional counties

To Whom It May Concern:

Enclosed are copies of articles that have been published in our local paper regarding the landfill expansion and H₂S gas emissions. There is a great deal of concern as to whether or not H₂S is escaping from the WM landfill into Cortland Township, Town of Cortland, and the nearby grade school. Many believe WM is not effectively controlling gas emissions from the landfill now and the situation will worsen as garbage intake is increased...

I submit these documents, on behalf of the Stop the Mega-Dump Group. We ask that you review and note the concerns expressed by citizens of our County.

Regards, 
Barbara Votaw
637 Easy St.
Sycamore, IL 60178

Enclosures:

March 6, 2010	Landfill talk to continue
April 5, 2010	Letter: Not worth the risk
April 14, 2010	Counsel OK with Landfill
April 14, 2010	Anti-landfill action fails in Cortland
April 22, 2010	How environmentally safe are landfills?
May 6, 2010	Study did not test for toxic gas at school
May 8, 2010	Expansion of landfill should move forward
May 28, 2010	Letter: Landfill risks great
June 2, 2010	Hydrogen Sulfide Reading at Cortland Elementary reported
June 3, 2010	District more air testing needed at Cortland School
June 4, 2010	Summer School relocated from Cortland Elementary
June 8, 2010	Caution is best approach for Cortland school
June 12, 2010	Letter: Waste Management's view lacks integrity
June 16, 2010	Testing set at school
July 30, 2010	Clearing the air
August 5, 2010	Cortland air monitor to be installed today
August 8, 2010	The Delicate Balance by Dr. Aubrey J. Serewicz
August 19, 2010	Using the meeting to get informed
August 27, 2010	Copper Sampling Kits Available
September 5, 2010	Cortland School H ₂ S Monitor Not Functioning

3/6/10

Landfill talk to continue

Hearing resumes Thursday in Malta

By **CARRIE FRILLMAN**
cfrillman@daily-chronicle.com
and **JOHN PUTERBAUGH**
jputerbaugh@daily-chronicle.com

MALTA - A public hearing on a proposal to expand the DeKalb County landfill that lasted all week will resume late next week, the hearing officer announced Friday evening.

Hearing officer John McCarthy said the hearing will resume at 1 p.m. Thursday, and

If you go

What: Continued public hearing on proposal to expand the DeKalb County landfill

When: 1 p.m. Thursday

Where: Kishwaukee College, 21193 Malta Road in Malta

that time was agreed upon by all of the parties involved in the hearing.

The hearing, which has been held in Jenkins Auditorium at Kishwaukee College since Monday,

is regarding a proposal from Waste Management. The current landfill was built in 1966 and takes in about 350 tons of trash per day.

Waste Management wants to expand the landfill, which is on Somonauk Road south of Interstate 88, to take in about 2,000 tons per day. The trash could be brought in from 17 surrounding counties, which would pay a tipping fee to dump there.

See **LANDFILL**, page A6

When hearing on landfill resumes, public comments to be heard

• LANDFILL

Continued from page A1

Waste Management called several witnesses during the week, the last of whom was called Friday.

The public opposition called its first and only witness late Friday afternoon — retired NLU chemistry professor Aubrey Serewicz, who also maintains residence in DeKalb County.

Serewicz specialized throughout his career in gases and the possible danger certain gases pose to human beings. He provided some general information on different gases and how they interact with one another, sometimes resulting in dangerous conditions for people. Serewicz was largely restricted from speaking specifically about the proposed DeKalb County landfill expansion, as his experience does not include working with landfills or the gases associated with them.

When the hearing resumes next week, Waste Management's representation will have the opportunity to cross-examine Serewicz. Waste Management will then have the opportunity to present any rebuttal testimony and there will be time for further public comments, McCarthy said.

The hearing started Friday with Waste

Management calling traffic engineer Dave Miller, who testified that the proposed expansion would add about 240 vehicles each day to local roadways. Those vehicles would add the 237 trucks, collection vehicles, employees and visitors that currently enter and leave the landfill each day, he said.

Miller testified Thursday that the capacity of most roads near the landfill would be unaffected by the increase, partly because larger trucks — called transfer trailers — are required to take a designated route to enter and leave the landfill. That route is Interstate 88 to Peace Road, to Route 38 and then over to Somonauk Road, where the facility's entrance is located.

But that route, he said, applies only to 100 of the 240 waste haulers that will be added each day. The remaining smaller trucks, such as conventional garbage packers, will be allowed to take any route.

County board member Paul Stoddard asked Miller how Waste Management ensures transfer trailers are adhering to the prescribed route. The company works with local law enforcement agencies and large trucks straying from the route while on their way to the landfill can be ticketed, he said.

"They're very strict," Miller said of

Waste Management, adding that drivers receive one warning before being fined.

The capacity of the main roads in the route would be unaffected by the proposed expansion, he said. For example, it would add 1 percent to the traffic on Peace Road — the current traffic level accounts for 48 percent of the road's capacity and the expansion would increase that to 49 percent, leaving 51 percent left of available road space, Miller said.

The start of the hearing was delayed Friday when community resident Rosemarie Diez Slavenas voiced her concern that only two county board members were in attendance.

She said the hearing was not well publicized and residents have not been well informed about how they can participate.

Slavenas said she was disappointed to see only two members of the Pollution Control Facility Committee present. That six-member committee will make a recommendation to the county board regarding the landfill expansion after the hearing.

Don Moran, who is representing Waste Management, said that it's not required for committee members to be present at the hearing and that proceedings are legally required to continue in their absence.

Waste Management on Friday also called David Yocca, a landscape plan-

ner for Conservation Design Forum of Elmhurst, who conducted a study examining the potential effects of the landfill expansion on surrounding landscapes. Yocca's expertise includes extensive experience in sustainable and ecological landscape planning.

Yocca explained how his study and assistance is intended to help Waste Management apply "sustainable landscape design principles" to the expansion. Such principles include context-sensitive, ecologically based landscape systems, biodiversity and local sustainability policies.

He added that the expansion, with a focus on sustainability and ecologically sensitive methods, would coincide with DeKalb County's existing "Go Green" movement.

The first hour of Yocca's testimony included his professional background and experience. He then spoke briefly with specific regard to the proposed DeKalb County project and whether it would negatively affect the surrounding area.

"My opinion is that it has been so located as to minimize the impact of the facility on the character of this area," Yocca said. "First, the location is in a primarily rural area away from population in areas primarily agricultural in land use. And secondly, a variety of screening strategies have been incorporated into the design."

4/5/10

Letter: Not worth the risk

Contrary to most of the county board, we were able to attend the entire public hearing concerning the expansion of the Cortland dump. A number of facts came out at this hearing, which make us vehemently opposed to this expansion.

1. The expansion is gargantuan. It includes room for 18 million tons of garbage from outside the county. Given the population of those counties, a majority of this garbage will be from Cook County. Our county's fertile agricultural land should not be permanently diverted for the storage of Chicago's garbage. This use of our pristine farmland is contrary to the vigilance the county has shown through its zoning laws for decades.
2. DeKalb County recycles over 50 percent of it's waste. Why should we expand our landfill to provide space for counties who recycle at the state average of 20 percent or less? What message does that send to our school children and others about the importance of recycling?
3. Over the expansion's life it will take over 800,000 giant semi trucks to bring that much garbage to Cortland from Cook and surrounding counties. No testimony was given as to what pollution will be generated by that many garbage semis let alone any smell or waste that will inevitably escape from those trailers.
4. The most crucial fact presented at the hearing did not come from the petitioner's highly paid cadre of professional witnesses but instead from a very respected NIU chemistry professor, Dr. Aubrey Serewicz. His lifelong study of gases has shown that the extremely dangerous hydrogen sulfide gas that you smell while passing the existing dump flare is not fully dissipated in the open burning process at and proposed for the site. This is certainly the principal reason that Cook and the other 15 counties are not approving additional landfills even for their own garbage

We are not so naive to not understand that this additional garbage means at least \$75 million to the county over the contract's life. While this is a very tempting and easy way out for financing future county needs, we do not think it is worth the risks. Whether it has been a building, a bridge, a forest preserve, or a charitable endeavor, we have been proud to provide for our own needs from our own resources. While not always the easiest, those projects were done without risking the health and welfare of future generations.

John H. Boies and Mary-Glynn Boies

Sycamore

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Counsel OK with landfill

But experts say company must make some changes

By CARRIE FRILLMAN
cfrillman@daily-chronicle.com

SYCAMORE - Legal counsel for the DeKalb County Board has recommended that board members approve Waste Management's plan to expand the county landfill, but only if the company makes a few changes.

The recommendation was prepared by Renee Cipriano, a former director of the Illinois Environmental Protection Agency who is providing legal counsel to the county, and her team of experts. It became available to the public Tuesday and is accessible at the county board building.

The Pollution Control Facility Committee reviewed the report during a meeting Tuesday afternoon. The committee is the six-member group of county board members who will make a recommendation to the full board about the expansion. The proposal to expand the DeKalb County Landfill was made by Waste Management on Nov. 30, 2009. The site is on Somonauk Road south of Interstate 88.

Public comments, data from the weeklong landfill hearing, and research by the county's team of attorneys and experts helped form "special conditions" identified in the report. It's those conditions that Waste Management will be asked to meet if the plan is approved, officials said.

Among them is a hydrogen sulfide monitoring system to analyze air around the landfill. Hydrogen sulfide is a gas with a very low odor threshold - 20-40 parts per billion, the recommendation says. It presents a rotten egg smell, and Aubrey Serewicz, a former Northern Illinois University professor, testified at the landfill hearing in March that the compound is dangerous at levels as low as 200 parts per billion.

The recommendation released Tuesday says no technical support was found for such claims.

The Occupational Safety and Health Administration has determined that workers might be safely exposed to up to 10 parts per million of hydrogen sulfide on an ongoing basis, for a daily eight-hour shift, the document said.

Waste Management conducted air monitoring from March 30-April 6 in response to residents' concerns about the gas, documents said. On each of those days, 28 air sampling locations were tested three times daily.

Know more

• **Online:** Visit Daily-Chronicle.com to view the report.

• **Inside:** Anti-landfill action falls at Cortland Township annual meeting. **Page A3**

Legal counsel gives approval to landfill but wants changes

• LANDFILL

Continued from page A1

"Of the 588 air samples collected, only one was found to contain H₂S at a detectable concentration," the recommendation said. "The single detection of H₂S was found at 4 ppb, 2,500 times lower than the federally enforceable OSHA standard..."

Experts compiling the recommendation do not believe hydrogen sulfide poses a health or environmental risk, it said, but do want levels monitored using stations around the perimeter of the landfill. Under the plan, concentrations exceeding 10 parts per million will trigger an alarm. Homeowners within one-half mile of the property also will be notified.

The report also specifies that additional berms be built to shield the site from view, a complaint hot line be created for residents, and that all waste haulers be informed in writing of designated truck routes.

County board member Paul Stoddard raised concerns Tuesday about enforcement of those routes.

"I suspect a lot of people aren't going to know, 'Oh that truck shouldn't be there,'" Stoddard said. "Are we going to ask the sheriff to enforce this for us? There is no law that they're breaking if they don't take the prescribed route."

County board member Riley Oncken said he thinks drivers will abide by the route because if they don't, they risk losing their jobs.

Cipriano said she will look into the matter.

The extension of a property value guarantee is also included in the recommendation's provisions. The original proposal said that Waste Management will reimburse residents within one-half of a mile of the landfill site if their homes sell for less than the appraised value and homeowners can prove the landfill is to blame. If approved, the proposal must now include a property value guarantee for homes within one mile of the site, the

recommendation said.

Aside from the outlined conditions, Waste Management proved that its proposal meets nine specific criteria that warrant its approval, the 60-page recommendation said. Those criteria are: a need for the facility, safety plan, minimally invasive location, site design outside the flood plain, plan to minimize danger from accidents, a traffic pattern for haulers, emergency response plan, solid waste management plan and that the site is not in a "regulated recharge area."

Support from the hearing, public comments and independent research are provided in the report for each of the nine categories. Also included is a breakdown of written comments received from the March 11 conclusion of the hearing through Monday.

Forty-eight written comments were made in opposition to the application - 18 weren't included in the report, as they were received Monday. Cipriano said she still was reviewing those final comments Tuesday and will provide feedback to the committee.

Two comments were in favor of the application and eight took no position, according to the document.

"We have tried to be very careful and particular about the public comments that were received during this entire hearing process," Cipriano said.

The landfill was built in 1956, and in 2009, took in about 270 tons of trash each day, officials have said. Waste Management wants it to be expanded to take in about 2,000 tons per day, and garbage could be brought in from 17 surrounding counties, which would pay a tipping fee to dump there.

The revenue generated from the landfill expansion has been targeted to help pay bonds to expand and renovate the county jail and courthouse.

The pollution committee will meet April 23, when members will vote on whether to recommend approval of the plan to the full board.

Anti-landfill action fails in Cortland

By JOHN PUTERBAUGH
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CORTLAND — A local effort to stop the proposed county landfill expansion failed Tuesday evening just days after legal counsel for the DeKalb County Board recommended the project's approval.

Roger Steimel, a Cortland farmer and former county board member, intended to propose a motion from the floor at Cortland Township's annual meeting to disallow the county board from proceeding with its expansion plan. After a short discussion on the letter of the law as it pertained to local and state statute, it was agreed that Tuesday night's agenda was unalterable and that motions and items for the agenda were to be received in writing by March 1.

During public comments, Steimel expressed his disappointment in the process and result of the county board's expansion plan, and even expressed frustration in a lack of attendance by Cortland residents at the public hearing last month at Kishwaukee College.

"This area here is really being taken advantage of," Steimel said. "This is probably going to be the most important decision that's going to affect Cortland Township. Waste Management really got the chance to write their own ticket to what they're bringing here."

Steimel expressed concern over hydrogen sulfide emission, which he learned was a large cause of the odor associated with the landfill. While past issues with odors have been addressed, he's wor-

"This area here is really being taken advantage of. This is probably going to be the most important decision that's going to affect Cortland Township. Waste Management really got the chance to write their own ticket to what they're bringing here."

Roger Steimel

Cortland farmer
and former county board member

ried about what will happen with the drastic increase in garbage intake an expanded landfill would allow.

While resigned to the likelihood of the proposed expansion proceeding per the plans of the county board, Steimel took the opportunity to reflect on opportunities missed. The work to prevent this from happening should have been done several years ago, he said.

According to Mike Franczyk, who moderated Tuesday's meeting, the public could still request a special meeting of the Cortland Township Board to consider a movement to disallow the landfill expansion. Upon receiving such a request, the board would decide whether the motion was relevant under the power it holds. If it is deemed relevant, the board could then proceed with scheduling a special meeting to address the topic.

4-22-10

How environmentally safe are landfills?



A Waste Management employee uses a tarp to cover the active landfill site in Cortland on April 5. The daily act of covering the active site with plastic and soil is meant to contain carbon and odors as well as prevent disease and insect infestation at the landfill.

Bob DeRubeo - bob@waste.com

Experts: Most sites no threat

By **CAROL FRILLMAN**
 cfrilman@daily-chronicle.com

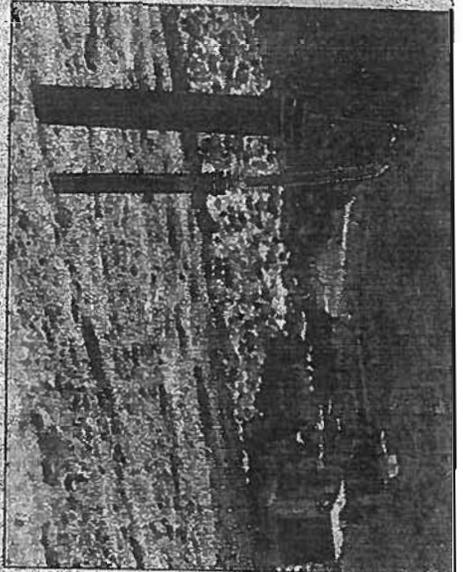
Dirty paper towels, uneaten food and disposable cups generally find their way to the household trash can.

But few likely think about what happens to their garbage after the trash bins are dragged to the end of the driveway, said Christel Springmire, solid waste coordinator for the DeKalb County Health Department. Most waste - exceptions being electronics, liquids, or toxins like paint or oil - ends up in a local landfill, a facility for the disposal of waste materials by burial.

In DeKalb County that site is at 18370 Somonauk Road, south of Interstate 88 in Cortland Township. And that landfill has been in the spotlight recently because of a proposal to expand it to take in more trash. It has led some to question the environmental integrity of a landfill.

The county landfill took in about 272 tons of trash per day and a total of 70,789 tons in 2009, Springmire said. Waste deposited from outside the county totaled about 10 percent of that value, or 7,547 tons, according to the 2009 Solid Waste Annual Report done by the health department.

Waste Management, which has operated the landfill since 1991, wants permission to take in about 2,000 tons of trash per day. Trash could be brought in from 17 surrounding counties, which would pay a tipping fee to dump there. The county has proposed using that revenue



Beck Diefenbach - beckenbach@dailycr.com

One of many gas recovery wells stands above the active landfill in Cortland. The gas recovery well helps reduce odor and seepage from the landfill by creating a negative pressure in the soil with the removal of the gas which is buried.

to pay for another expansion - that of the county jail.

After a 50-hour hearing on the expansion proposal in March, the county's legal counsel, Revere Cipriane, ruled April 12 that the proposal meets the necessary criteria to warrant approval from the county board.

The Pollution Control Facility Committee, a seven-member group of county board members, is scheduled to vote Friday on its final recommendation to the full 24-member board, and the county board is expected to take it up in May. The final say will come from the Illinois Pollution Control Board.

See **LANDFILLS**, page A7

Expansion by the numbers			
272	Tons of trash per day the landfill took in 2009	2,000	Tons of trash per day Waste Management would like the landfill to take in
		17	Number of counties trash could be brought from to DeKalb County

Inside today's Daily Chronicle

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Experts agree that most landfill sites pose little to no risk

• LANDFILLS

From page A1

Public officials are unable to talk about expansion-related issues. State rules prohibit county board members from having any contact with interested parties before a vote is taken, because such contact could taint their decision, DeKalb County State's Attorney John Farrell has said.

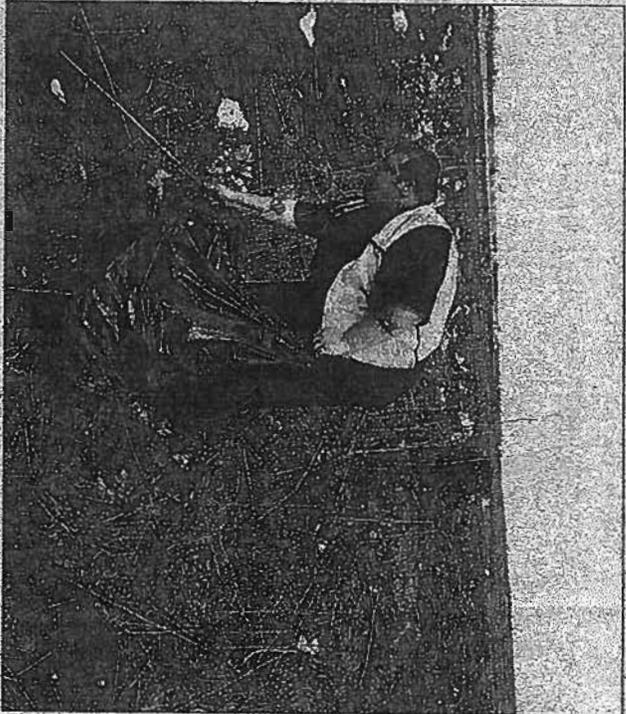
But local experts like professors, inspectors from the Illinois Environmental Protection Agency and health officials were able to talk about environmental threats a landfill might pose, as well as the record of the county landfill.

Basic requirements

Experts say most modern landfills are safe for the environment, people and animals. Groundwater and air quality near landfills are regularly monitored, mandated by both the national and Illinois Environmental Protection Agencies.

The most important thing is the geological setting, said Philip Carpenter, a professor of geology and environmental sciences at Northern Illinois University. That setting should be prepped with a thick layer of clay below at least one liner, Carpenter said.

Carpenter said the clay layer is generally impermeable and is a safeguard for the liner because "if contaminants were to get through, they won't go anywhere." He uses noninvasive methods to study landfills and groundwater contamination around them, and his



Will Sipka, of Aurora, and Tray Smith (not pictured), of Aurora, pick up litter which has blown away from the active landfill site at Waste Management in Cortland, Ill., on Monday April 5, 2010. Following a windy day, workers are sent out to pick up loose litter on and around the site to be returned to the active landfill.

underground and are much more susceptible to contamination. Shehane said she doesn't know of any private wells in the immediate vicinity of the DeKalb County Landfill.

If contamination were to occur, Hanson said the public is alerted before the groundwater quality standards exceed permitted levels in the public drinking water.

Keeping landfills in check

Carpenter said most of the shortfalls he's found with solid waste facilities are with those built

quires sampling to be completed by "third party entities." They have to test for a list of chemicals, he said, adding they look for known indicators that signal a leak at the site. If those are found, they need to test for even more chemicals.

Similar measures are required to monitor gases in the air, Shehane said, noting that she is not the one who conducts those tests. The company has installed underground probes around the local landfill that have sensors to ensure gas is not leaving the facility. Addelman referred to the local

said Richard Parent, a doctor and toxicologist who owns a consulting firm in Damariscotta, Maine. "It can be released in all kinds of landfills," Parent said. "It's even released in sewage treatment plants because it's a natural by-product of decomposition."

Hydrogen sulfide levels are monitored quarterly around a landfill, Springmire said, noting that most landfills do have a scent.

"You will frequently smell a landfill that is well below the threshold of H₂S levels," Springmire said. "That's the nature of the beast. It's garbage."

The rotten egg odor from the compound can be detected at very low concentrations, Parent said.

"If you're dealing with a landfill with hydrogen sulfide emanating from it, you'd expect people to complain about the smell long before it would cause harm," Parent said. "The chances of it reaching concentrations where it would produce harm are pretty slim."

In large concentrations, hydrogen sulfide numbs olfactory nerves and prevents people from being able to smell it, Parent said.

"If you smell too much H₂S and then you don't smell it anymore, that's when it gets really dangerous," Parent said. "Again, every thing is dependent on the concentration. It's really rare for this to present any real toxicity around a landfill."

H₂S levels are measured in parts per million. Between 20 and 100 ppm of the compound will cause eye irritation, Parent said, and 100 ppm is when olfactory re-

nominative methods to study landfills and groundwater contamination around them, and his research entails sifting soil and water through a site's waste and looking at the collection system used to treat and dispose of waste. He said he has never conducted a study on the DeKalb County Landfill.

The local landfill meets the EPA's mandate that the clay be 5 feet thick to prevent contaminants from seeping through, said Donna Shehane, environmental protection specialist through the EPA's Rockford office who inspects the DeKalb County Landfill at least quarterly.

Brett Hanson said there are "a whole slew of contaminants" that could be found and that a variety of health problems - from intestinal distress to cancer-causing agents - could occur as a result of drinking contaminated water. Hanson is the public service administrator at the EPA's Rockford office and monitors public drinking water in the region.

"If there are any leaks or run-off from (landfills), it can seep into rivers and streams and get into the groundwater," Hanson said. Any material from the DeKalb landfill will probably never find its way into the city's drinking water. DeKalb has fairly deep aquifers under a defining layer that pollutants generally do not get through."

Hanson estimated that DeKalb's public wells are about 1,000 feet underground. Private wells, he said, are generally 100-200 feet

deep. Carpenter said most of the shortfalls he's found with solid waste facilities are with those built in the 1980s, 60s and 70s that have not received sufficient upgrades. The DeKalb County Landfill was built in 1966 and began operations in 1968.

EPA officials said there have been numerous improvements over the years at the county landfill, including an upgrade to the gas collection system, a new gas burning flare, more wells, a new groundwater monitoring system, changes to the liner and a new collection system for leachate - a liquid byproduct of decomposing waste.

Any time an upgrade is added to a landfill, inspectors like Shehane visit to ensure the proper design was carried out.

Mike Hey, the district manager for Waste Management who oversees the DeKalb County Landfill, said landfills now test for more contaminants in both groundwater and air.

When it comes to groundwater, for instance, Waste Management determines the rate and direction the water flows, and then installs wells over the periphery of the site, said Lee Adelman, business development consultant for Waste Management. That way they know what's in the groundwater when it comes to the site and what's in it when it leaves, he said. There are more than 100 such wells at the landfill, according to Chirano.

Results of the studies must be reported to the EPA and EPA, Adelman said, which also re-

port have sensors to ensure gas is not leaving the facility.

Adelman referred to the local gas management system as a "tuned well field" where vacuums are strategically placed to capture methane that's produced as a byproduct of decomposing waste. The methane and its constituent elements are delivered to a flare that burns it at a quantity of up to 800 cubic feet per minute. Gas surrounding the DeKalb County Landfill, on average, is composed of about 55 percent methane and 42 percent carbon dioxide, Hey said. The remaining are trace elements, such as oxygen or nitrogen.

Attempts this week to reach the EPA air quality inspector who monitors the local landfill were unsuccessful.

Shehane described the DeKalb landfill as a "pretty quiet site." Since 1991, the only violation notices she knows of involved pieces of blowing litter in 2009 and Waste Management's failure to provide daily cover for an area of refuse in 2005, she said. That area was found after a snowfall, she said, noting that the company couldn't see that the area was uncovered until the snow melted.

"They corrected the issues and there's really nothing that stands out that has been a problem," Shehane said.

Air time

Among trace elements that might be present in a landfill is hydrogen sulfide or "H₂S." It's a colorless, poisonous, flammable gas that smells like rotten eggs,

100 ppm of the compound will cause eye irritation, Parent said, and 100 ppm is when olfactory (nose) typically sets in. Levels at 200 ppm are life-threatening and can shut down the nervous system.

The Occupational Safety and Health Administration has determined that workers might be safely exposed to up to 10 ppm of hydrogen sulfide on an ongoing basis for a daily eight-hour shift. Waste Management conducted air monitoring from March 30 April 6 in response to residents' concerns about the gas according to the recommendation from the county's legal counsel. On each of those days, 28 air sampling locations were tested three times daily.

"Of the 698 air samples collected, only one was found to contain H₂S at a detectable concentration," the recommendation said. "The single detection of H₂S was found at 4 ppb, 2,500 times lower than the federally enforceable OSHA standard."

Landfill officials addressed the potential presence of H₂S last year, Hey said, when they smelled a rotten egg scent near the landfill. They did not conduct an independent test aside from quarterly air monitoring to determine the level of the compound at the time, but, rather, decided to act, Hey said.

They found that drywall being brought into the landfill with other components of construction demolition "created the recipe that could lead to higher levels of H₂S."

Drywall is now banned from the facility, he said.

Study did not test for toxic gas at school

District to pursue a test

at Cortland Elementary

By ELENA GRAMM
egramm@daily-chronicle.com

DEKALB - While a report on Cortland Elementary School's air quality came back with normal results, the recent evaluation done by the DeKalb School District did not include testing for a harmful gas associated with landfills.

Don Biggs, the district's facility operations director, confirmed Wednesday that the testing agency, Ideal Environmental Engineering, did not test for hydrogen sulfide, a gas that can form when waste materials break down.

"(An ideal company representative) believed the test was not run because they don't

specialize in that kind of test," Biggs said.

The district authorized the environmental study after some local residents voiced concerns to the school board about the air quality of the school, which is located less than a mile away from the county landfill.

Biggs said he is now looking for another company to test for hydrogen sulfide and will make a recommendation to DeKalb Schools Superintendent Jim Briscoe, who will then forward the idea to have the additional test done to the school board.

DeKalb School Board President Mike Verbeke had asked whether the gas was included in the study after Biggs presented the findings at a Tuesday night school board meeting.

"That was a gas that was a component of concerns (surrounding the landfill issue)," Verbeke said during the meeting.

Biggs wasn't sure Tuesday night, but found out Wednesday it hadn't been tested.

Waste Management of Illinois, which operates the county landfill on Sotomauk Road just south of Interstate 88 in Cortland Township, wants to expand the facility to take in about 2,000 tons of trash a day. The new trash would be brought in from 17 surrounding counties that would pay a tipping fee to dump there. The landfill took in 272 tons of trash every weekday in 2009, according to the county health department.

The district employed the Bloomington-based Ideal for the study, which collected 17 air samples at Cortland Elementary on April 28.

Samples were collected in both indoor and outdoor locations, including the cafeteria, gym, library, classroom, office, playground and bus entry area. Particles tested were background debris, pollen, skin cells and mold spores.

"The general counts of everything came back pretty normal," Biggs told the school board.

The exception was skin cells, which showed higher-than-normal counts. This is because those numbers typically correlate with the number of people in the building, and a school setting has more occupants than most facilities, he said.

The district is still waiting for swab results from the bacterial sampling.

According to the Illinois Department of Public Health, exposure to small amounts of hydrogen sulfide gas can cause eye irritation, sore throat, cough, shortness of breath and fluid in the lungs. Long-term exposure could lead to fatigue, loss of appetite, headaches, irritability, poor memory and dizziness, and breathing high levels can cause sudden death, according to the health department.

The proposed landfill expansion was approved in April and the full county board is scheduled to vote on it Monday. Final approval for the proposal would come from the state.

► OUR VIEW

Expansion of landfill should move forward

On Monday, the DeKalb County Board will consider Waste Management's request to expand the county landfill on Somonauk Road, south of Interstate 88, in Cortland Township.

The 24-member vote will serve as a recommendation for the Illinois Pollution Control Board, which will have the final say on Waste Management's proposal. The company, which has operated the landfill since 1991, wants permission to take in about 2,000 tons of trash per day from 17 surrounding counties. Those counties would pay a tipping fee to dump here. There were 272 tons of trash per weekday dumped there in 2009, according to the county health department.

Garbage isn't sexy, but it can be profitable. And the county is poised to make money off other people's trash. That money, the county hopes, will be put toward the expansion of the DeKalb County Jail.

This issue has many different considerations and can be viewed from numerous perspectives. However, a core issue involves a decision where a government agency is going to make a determination regarding the ability of a private company to expand its business on land it owns, and where it has operated for 19 years. Unless there are safety or environmental issues that cannot be satisfactorily addressed, government should use caution when intervening in the private marketplace.

We see no reason why the county shouldn't approve Waste Management's proposal - on the condition that all requirements to ensure the safety of nearby residents and environmental integrity of the landfill are met. We might feel different if a landfill didn't already exist in that location. But one does.

Those opposed to the landfill have a legitimate concern when it comes to the environmental impact of the landfill, most notably air quality and the discharge of hydrogen sulfide - a colorless, poisonous, flammable gas that smells like rotten eggs.

The rotten egg odor from the compound can be detected at very low concentrations, said Richard Parent, a doctor and toxicologist who owns a consulting firm in Damariscotta, Maine.

For the record

The county is poised to make money off other people's trash. That money, the county hopes, will be put toward the expansion of the DeKalb County Jail.

The concerns regarding hydrogen sulfide can't be taken lightly, and the county's legal team and Waste Management appear to understand the seriousness of the concerns.

Renee Cipriano, a former director of the Illinois Environmental Protection Agency who has provided legal counsel to the county on this issue, and her team of experts has recommended the board approve Waste Management's proposal as long as it meets special conditions. Among them: a hydrogen sulfide monitoring system to analyze air around the landfill.

In response to residents' concerns, Waste Management conducted air monitoring from March 30-April 6 around the landfill. On each of those days, 28 air sampling locations were tested three times daily.

"Of the 588 air samples collected, only one was found to contain [hydrogen sulfide] at a detectable concentration," Cipriano's recommendation said. "The single detection of [hydrogen sulfide] was found at 4 [parts per billion], 2,500 times lower than the federally enforceable OSHA standard."

Let's not forget that the money generated from the expansion would fund a much-needed expansion of the jail. The county spends hundreds of thousands of dollars each year to house inmates at the Boone County Jail.

Taxpayers have made it clear through failed referendums that they do not want to foot the bill to pay for jail expansion. So, the county listened and found an alternate revenue source.

Life is sometimes about trade-offs, and in this case the trade-off is a non-publicly financed expansion of the jail in exchange for garbage. Other people's garbage.

Somebody is going to make money off that garbage. As long as it is environmentally safe, it might as well be DeKalb County.

5/28/2010

▶▶ LETTERS TO THE EDITOR

A model for Illinois

To the Editor:

Why can't the governor and General Assembly be more like Ronald Reagan?

Reagan inherited a structural deficit in his first term as California governor. When Reagan realized his proposed 10 percent across-the-board cuts would destroy many programs, he reversed himself and, working with the Democratic legislature, enacted one of the most progressive income taxes in the nation. Now that's a model Illinois could follow.

Dave Rathke
DeKalb

Landfill risks great

To the Editor:

DeKalb County Board member Pat Vary wrote why she voted for the landfill (Guest View, May 12, 2010).

I submit she should not have voted for it because the risks outweigh the "benefits" (a source of revenue; a waste site for DeKalb). Waste Management will potentially deliver 206 million tons of waste to Cortland from 17 counties, including Cook. During waste decomposition, toxic products will be emitted into the air and the liquid-like leachate generated in the landfill. Methane and hydrogen sulfide will be the predominant gases produced, however, about 0.5 percent will be toxic volatile organic molecules observed in other landfills throughout the country.

Although most of the gas liberated will be burned via a flare, about 25 percent will escape into the atmosphere. The combustion process will produce dioxins that have been shown to damage human health and, at higher levels, cause cancer. Typical landfills also might contain aromatic and chlorinated hydrocarbons, pesticides,

pharmaceuticals and pathogens. Although the concentrations of toxic substances released are low, epidemiological studies have shown an increased incidence of low birth weight infants, fetal and infant mortality, and birth defects in populations living near waste landfills. However, an addition to the above concern, it is well recognized that the best landfill liners used to ensure leachate containment will eventually deteriorate and cause the leachate to be released and potentially contaminate groundwater.

The landfill siting application states that Waste Management will not dispose hazardous waste; however, the random inspections (three per week) and waste identification procedures designed to reduce the possibility won't guarantee hazardous waste will enter the site. Slowly but surely, hazardous waste will accumulate at the site. If the landfill will be

as assuredly safe as Pat Vary suggests, then why has Waste Management committed to obtain a pollution liability insurance that covers bodily injury and property damage.

Part of my professional work as a neurophysiologist has been to study the effects of chemical agents and toxic substances on nerve and muscle. Some agents, such as chlorinated hydrocarbons, can be particularly harmful to humans at fairly low concentrations. Some substances, such as dioxins, are fat soluble and over time will accumulate in the human body to increase the likelihood of disease. I submit that DeKalb County residents should be concerned about the potential risks of the landfill expansion and join those of us opposed to it to prevent it from occurring.

Richard Hahn
Cortland

STOP THE DEKALB CO. MEGA-DUMP

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No Mega-Dump in DeKalb Co. Illinois

6/2/10

« Up-Date of the Appeal Process

Today the appeal with the Illinois Pollution Control Board has been filed »

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Hydrogen Sulfide Reading at Cortland Elementary Reported

Measurable amounts of hydrogen sulfide were found at Cortland Elementary school a testing company reported at the Tuesday night District 428 School Board meeting. One location tested within the building measured at the top of the level acceptable by the Illinois Department of Health for in-doors. The amount outside of the school, on a day when the wind was blowing from the north toward the landfill, measured 0.82 pp million, ten times the amount inside the building.

This report once again provides further example of how the county is at danger if they are going to trust the reports of Waste Management Inc. The measures found by Carnow and Conibear, hired by the school district to test at the Cortland elementary school site, were much higher than those reported by Waste Management. Once again it is clear that we can not trust the assurances given by Waste Management nor the assurances given by the DeKalb County Board.

More testing is going to be conducted inside and outside of the school, for a longer period of time, under various weather conditions, times of day, and different wind speeds from other directions. After further testing Mr. Rod Harvey of Carnow and Conibear said he would be able to offer a professional opinion on whether the H2S is coming from the landfill or not. Members of the school board wisely said they did not trust Waste Management and that they also wanted the soil tested as well as the water.

According to Dr. Carman, former Texas environmental official and clean air director of the Texas Sierra Club, "The effects of toxic pollution such as H2S on growing children is recognized by experts as particularly severe."

The fact that the outdoor amount of H2S is 0.82 pp million is especially worrisome because as Dr. Carmen explains, "Children are more vulnerable than adults to hydrogen sulfide, first because they breathe more rapidly, taking in significantly more pollution per pound of body weight than do adults. Second, national data show that children spend an average of 50% more time outdoors than adults." The reading of H2S was taken on the south side of Cortland Elementary where the playground is located and where the children have their outdoor recess. Also the state of Illinois requires 40% of the air in a classroom to be outside air brought in through unvents.

Dr. Carmen also points to a third reason why H2S is more dangerous for children, "Third, children are three times more active outdoors (than adults.) This increased activity raises breathing rates and significantly increases inhalations and in some cases swallowing of pollutants."

ENVIRONMENTAL ISSUES

- [The Mike Nowak Show on Chicago's Progressive Talk](#)

As if this were not enough to convince anyone that there is no reason to expose our children to this risk Dr. Carmen also adds this information, "Fourth, children are particularly vulnerable to toxic substances because their bodies are immature and rapidly growing. Fifth, children in their prime learning years and H2S exposure causes brain damage. The impairment of mental faculties in a child amounts to a lifetime of harm."

Although it is good that the school district is having further testing done at the Cortland Elementary school it is already clear that the children there are at more risk than children located far from the landfill.

Again Dr. Carmen points out, "Public health scientists now recognize that hydrogen sulfide is a potent neurotoxin, and that chronic exposure to even low ambient levels causes irreversible damage to the brain and central nervous system. Children are among the most susceptible to this poison gas. It is unacceptable for communities to have to continue suffering the ill effects of H2S when the technology to control H2S emissions is available and affordable."

COMMENTS

- Kim Hoffman on [Contact Stop The Mega-Dump](#)
- Matt Lochmann on [A Landfill Postscript - Letter to the Editor of the Daily Chronicle](#)
- Heather Adams on [Stop the DeKalb County Mega-Dump Ten Key Points](#)
- Dan on [Contact Stop The Mega-Dump](#)
- judy gilmour on [Contact Stop The Mega-Dump](#)

It is also unacceptable that the governmental officials of DeKalb County Board and the city of Cortland turn their backs on the children of the county and vote to put them at risk. Shame on the County Board members for voting yes to this dangerous expansion. We can only imagine how much H2S will be in the air if 2,000 tons per day start to go in across the field from the playground.

The Stop the DeKalb mega-Dump group encourages everyone to stay involved and engaged. Prepare to defend our children before the Illinois Pollution Control Board at the public hearing in August. We can still stop this mistake from going any further.

Dan Kenney
Chair of the
Stop the Mega-Dump

This entry was posted on June 3, 2010, 6:06 am and is filed under [DeKalb County Board, waste management](#). You can follow any responses to this entry through [RSS 2.0](#). You can skip to the end and leave a response. Pinging is currently not allowed.

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The breakdown

Hydrogen sulfide levels are measured in parts per million or billion. 1,000 parts per billion is equal to one part per million. In order to convert a "parts per billion" value into a "parts per million" value, the decimal needs to be moved three places to the left.

Source: Rod Harvey, director of general industrial hygiene services at Carnow, Coribear & Associates, Ltd.

Hydrogen sulfide at Cortland school

By **CARRIE FULLMAN**
cfullman@daily-chronicle.com

CORTLAND - Daine Walker said Wednesday that the proximity of Cortland Elementary School to the DeKalb County landfill has been a concern of hers since the building was constructed last summer.

"When the school first opened, you'd walk up and you could smell the landfill in the air," she said, noting that her 6-year-old daughter and 9-year-old son both attend the school. "It's a major concern of mine. It can't be good for you."

And Walker said that preliminary air quality tests from in and around the school reinforced her concerns. District officials contracted the Chicago-based envi-

ronmental consulting firm Carnow, Coribear & Associates, Ltd., in early May to test for methane and hydrogen sulfide, also known as H2S.

Results returned to the district May 26 revealed no methane but that there was a "detectable amount of H2S." Hydrogen sulfide is a colorless, poisonous, flammable gas that smells like rotten eggs, experts have said. It is a natural byproduct of decomposition and can be released from various sources, said Rod Harvey, the director of general industrial hygiene services at the testing firm, who reviewed the results.

But the May 26 results are preliminary, district officials said Wednesday. The DeKalb School Board asked Tuesday that more tests be conducted to identify the source of the H2S as well as determine whether early

results are accurate. The county landfill can be seen from the school site and is within 1 mile of the building, but experts said they can't be sure if it's the reason H2S may be present.

Schools Superintendent Jim Briscoe said Wednesday that the district had not yet notified parents - aside from Tuesday's school board meeting - of the results but plans to post something on the district's website about it soon.

"We have a lot of questions to answer in the next few days," he said, adding that the district must decide whether summer school classes for elementary students should still be held at Cortland.

See **CORTLAND**, page A9

Hydrogen sulfide found at Cortland Elementary

• CORTLAND

Continued from page A1

"We don't want to put information out to parents that's not accurate. I would certainly hope that people would understand why there's a need for more testing."

H₂S levels are measured in parts per million or billion. Tests were conducted in May at three different areas within Cortland Elementary School and one area outside the school, Harvey said. Two of the three indoor locations found a presence of H₂S - .014 ppm in one location and .0081 ppm in the other - and the level detected outside, .082 ppm, was 10 times higher than those inside the school.

The levels at the two inside sites were right at the acceptable standards set by the Illinois Department of Public Health.

"The IDPH says in its documents stay below .01 ppm, primarily because that is the odor threshold," Harvey said. "And basically that if there is a source of H₂S, it should try to be corrected."

The Occupational Safety and Health Administration has determined that workers might be safely exposed to up to 10 ppm of hydrogen sulfide on an ongoing basis, for a daily eight-hour shift. Harvey said "there really are no standards in the U.S. for outside levels."

Weather, wind, time of day and the nature of the source all affect how much H₂S is present in a given location, he said. Therefore, the next round of testing will include more than one outside location and also add more indoor locations.

"Our focus at first was at the south side of the school," Harvey said. "But results should be gathered on different days and in different weather ... exactly when those are completed will be driven largely by weather conditions."

Potential indoor sources of H₂S are "any drain that's connected to the sewer," he said. Disconnected pipes and heaters may also lead to a detectable amount of H₂S. Outdoor sources of the gas may be commercial feeding operations, water treatment plants or naturally occurring marshes, Harvey noted.

"We'll need to do a thorough review of that area, probably spanning out a

couple miles to determine specific sources," he said. "We'll need to review results from and analyze the data we get from all samples. ... Comparing those outside samples with weather will help us to see if there is a directional component with the change in wind direction."

Several parents interviewed at the elementary school Wednesday supported further testing and considered even the preliminary results to be bothersome.

"Of course it concerns me," said mother Patricia Brooks, who has one son in kindergarten and another who will start at Cortland Elementary next year. "I obviously don't want them to be subjected to something that is potentially harmful."

Waste Management, which operates the landfill on Simonauk Road in Cortland Township, conducted air monitoring from March 30-April 8 at the landfill in response to residents' concerns about the gas, according to the recommendation from the DeKalb County Board's legal counsel that suggested the board approve a proposal to expand the facility.

On each of those days, 28 air sampling locations were tested three times.

"Of the 588 air samples collected, only one was found to contain H₂S at a detectable concentration," the recommendation said. "The single detection of H₂S was found at 4 ppb, 2,500 times lower than the federally enforceable OSHA standard."

The DeKalb County Board gave the go-ahead May 10 to expand the landfill from taking in just under 300 tons of trash per day to about 2,000 tons per day.

The state still has to approve the proposal, but if it does, the trash could be brought in from 17 surrounding counties, which would pay a tipping fee to dump there. The county has proposed using that revenue to pay for another expansion - that of the county jail.

Members of the DeKalb County Stop the Mega-Dump group have said they plan to file an appeal to the county board's approval of the expansion plan on or around June 10.

Harvey said he hopes to have additional H₂S results from Cortland Elementary School back by a July school board meeting.

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Summer school relocated from Cortland Elementary

Author(s): ELENA GRIMM **Date:** June 4, 2010 **Section:** News

DeKALB – Summer **school** classes will be held at locations other than **Cortland Elementary School**, District 428 officials announced Friday. District spokesman Russ Fletcher said that general education and elementary students with special needs will have classes at **Brooks Elementary School** and that students in grades 6-12 with special needs, along with vocational education for students with special needs, will have classes at **Clinton Rosette Middle School**. Administrators made the decision to change locations following a report that there were "detectable amounts" of hydrogen sulfide in the air inside and outside of **Cortland Elementary**.

A colorless, poisonous, flammable gas, hydrogen sulfide, or H₂S, is a natural byproduct of decomposition. District officials hired an environmental consulting firm in early May to test for methane and H₂S.

No methane was found, but H₂S levels found inside the **school** were right at the acceptable standards set by the Illinois Department of Public Health, and the level detected outside, .082 ppm, was 10 times higher than those inside the **school**.

More testing will be done to identify the source of the H₂S and check the accuracy of the first results, **Schools Superintendent Jim Briscoe** said earlier this week. These tests may take up to two weeks.

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► OUR VIEW

Caution is best approach for Cortland school

When we learned last week that DeKalb School District officials were considering not holding summer school at Cortland Elementary School over concerns of air quality test results, our initial reaction was that we feared school officials were overreacting.

Although the air quality test results, which found detectable amounts of hydrogen sulfide, are disconcerting, they are not cause for panic. Many variables can affect how much hydrogen sulfide is present in a given location, such as weather, wind and time of day.

Even so, our initial reaction would have been wrong.

Not because it is time to panic and start talking of closing a school after only one year. But because caution is the prudent course, particularly when another option is so readily at hand.

School officials announced last week that instead of holding elementary and middle school programs at Cortland Elementary School, as had originally been planned, they would instead hold elementary summer programs at Brooks Elementary School, and middle school programs at Clinton Rosette Middle School.

That was an easy fix, which will do more than simply delay any concerns over students' return to the school building for a second year. It will allow the district to do additional testing, and, hopefully, to get a better handle on the extent of the problem, and even its cause.

For the record

District officials are doing the right thing by changing summer school plans and ordering more air quality testing inside and outside of Cortland Elementary School.

For some people, the cause seems clear enough. Because hydrogen sulfide – a colorless, poisonous flammable gas that smells like rotten eggs – is a natural byproduct of decomposition, the culprit is clearly the nearby landfill. A landfill is intended to allow garbage to decompose, ergo the hydrogen sulfide detected in the recent studies is from the landfill. Furthermore, the thinking goes, more garbage means more hydrogen sulfide. Case closed.

Yet there are many potential sources of hydrogen sulfide, including drains, pipes and heaters, while outdoor sources include commercial feeding operations, water treatment plants and naturally occurring marshes. And yes, a landfill is certainly another potential source.

But just as we would have been wrong to react too quickly with too little information, we urge others not to react too hastily. Identifying the source of the gas is an important step to mitigating the problem and learning more so that parents can be assured their children are attending school in a safe environment.

District officials are doing the right thing by changing summer school plans and ordering more air quality testing inside and outside of Cortland Elementary School. They are being prudent and cautious without being alarmist. For the time being, that's a good approach for everyone to take.

LETTERS TO THE EDITOR

Waste Management's view lacks integrity

To the Editor:

Waste Management and its
director have no shame.

Dale Hoekstra, who in sworn
testimony says he has no
knowledge of how hydrogen sul-
fide behaves and has no chemi-
cal background, is lecturing
concerned citizens as hysteric
about measured data.

Further, he belittles our intelli-
gence to claim hydrogen sulfide
is all over Dekalb County, but
not at the landfill. The com-
pany's statement shows a lack
of integrity bordering on false-
hood.

1. They testified hydrogen
sulfide can be smelled at .001

ppm and it's odd at 80 times
that concentration no one at
Cortland School noticed the
odor.

2. Methane was not detected
because it is many times lighter
than air, rising like a helium bal-
loon. Hydrogen sulfide is heavier
than air and hugs the ground,
collecting at night until blown
around.

3. The distance from the
Cortland School playground to
the fence line of the landfill is
1,352 feet, a quarter mile, not a
half-mile or 1 mile as claimed in
other Daily Chronicle articles.

4. Air does neutralize hydrogen
sulfide, but it takes 14 hours. It
only takes three minutes for a
pocket of hydrogen sulfide to

travel from the 110-foot peak
of the landfill down to Cortland
School.

5. OSHA, the workplace limit,
is the law for mature adults,
and its high limit is all that the
company follows. NIOSH, its ad-
visory agency, with lower limits
and shorter time, is ignored. The
CDC with its limit at .030 and
some 20 other states, with this
lower limit is also ignored. They
ignore the progress of health
science and claim concern of
neighbors.

6. At lower concentrations, the
obvious symptoms are lethargy
and confusion. As a result,
in February 2010, alone, four
landfill workers in the U.S. were
killed at landfills, run over by

equipment. They were appar-
ently confused.

Yes, there is fear, but it is
Waste Management that fears.
It fears real data and real sci-
ence. The toxicity regulation of
hydrogen sulfide was held back
by the EPA from enforcement
for 16 years until April 27, 2010.

At the University of Illinois,
three schools, covering five
departments, published a report
in 2007 showing that hydrogen
sulfide is a genotoxic material.
They cite 48 other confirming
papers.

This is real science. Let us take
heed before it is too late.

Audrey J. Serewicz
Dekalb

6-12-10

6-16-70

Testing set at school

Will be looking for
hydrogen sulfide at
Cortland Elementary

By ELENA GRIMM
egrinn@daily-chronicle.com

DeKALB - Additional testing for hydrogen sulfide at Cortland Elementary School will likely start Thursday or Friday, according to school district officials.

During Tuesday night's DeKalb School Board meeting, members learned more about how that testing will be conducted. They also learned that Waste Management, which operates the county landfill about 1 mile away from the school, wishes to conduct simultaneous testing.

After preliminary testing in May revealed measurable amounts of hydrogen sulfide -- a colorless gas that is a natural byproduct of decomposition -- in and outside of the school, District 421 has again hired the Chicago-based environmental consulting firm, Carnow, Combear & Associates, Ltd., to run additional tests.

Rod Harvey, the director of general industrial hygiene services at the testing firm, said that the investigation will include air testing, drywall sampling, and a review of historical records and surrounding properties.

The cost for these services is about \$31,300, said Don Biggs, the district's director of facility operation services.

Initially, the investigation was going to cost nearly \$80,000, but soil testing and groundwater testing were removed to reduce costs, Harvey said.

More inside

To try to beat rising interest rates, the DeKalb School Board moved up the schedule for issuing construction bonds. **Page A3**

Testing for hydrogen sulfide to be done at Cortland school

• TESTING

Continued from page A1

Twenty-four air samples will be collected from three locations inside and one location outside the school on six separate days, which will allow for different weather and wind conditions, Harvey said. This will likely be done over a two-week period, Biggs said.

Besides the air samples, an instrument will be used to "sniff" areas where H₂S may be entering, such as drains or sewer pipes, Harvey said.

Three samples of drywall will be collected to determine if the material is contaminated.

The firm will also review the Phase I Environmental Assessment and Geotechnical Report for the school property, along with reviewing surrounding properties and businesses within 2 miles of the school. For this review, the firm plans to look at area maps and environmental records obtained from federal, state or local agencies.

Schools Superintendent Jim Briscoe said that he was contacted by Waste Management, which wants to expand the landfill to take in about 2,000 tons of trash a day, about conducting similar tests at the school.

Briscoe said he was fine with the landfill operator's plan to test "as long as they do the exact same testing at the exact same time." He asked

Harvey if he had a problem with Waste Management's request.

Harvey saw it as a benefit to the district.

"The data I generate and opinions I form are subject to review by the community, by the media, by Waste Management," Harvey said. "From that point of view, I welcome them doing it side by side. The pitfalls are if we have different data."

Board member James Mitchell said that Waste Management's activities was not a concern of his, but that Harvey and his team proceed with what they have been hired to do.

"Let them do whatever they want to do," he said of Waste Management. "I don't trust their numbers ... because they're biased."

Board member Jessica Lyons echoed Briscoe's sentiment.

"I want to see the results (that Waste Management would measure), and I want to see if it's a mirror image," she said.

After the investigation is complete, the testing agency will prepare a comprehensive report that will include a list of possible sources and "an opinion on the potential contribution of each of these sources to hydrogen sulfide concentrations detected in the school," according to school board documents. The report should be available July 16 and be presented to the school board at the July 19 meeting, which was rescheduled from July 20.

CORTLAND ELEMENTARY SCHOOL

Clearing the air



Air to be monitored at Cortland Elementary

By ELENA GRIMM
egrimm@daily-chronicle.com

DEKALB - A monitor will be installed at Cortland Elementary School to constantly test hydrogen sulfide levels in the air, school district officials announced Thursday.

That was per the recommendation of Ted Hogan, a certified industrial hygienist who completed an analysis of test results conducted around the school to measure levels of hydrogen sulfide, a colorless gas that is a natural byproduct of decomposition.

Parents concerned about the air quality at the school packed the meeting room at the District 228 central office during the special meeting of the DeKalb School Board.

After Hogan's presentation, they asked questions to understand the results and the steps moving forward.

Besides recommending that the school is safe, Hogan said the recently measured hydrogen sulfide levels



Reed Dieffenbach - ediefenbach@daily-chronicle.com
Cortland Elementary asks if the testing considered young children with developing lungs or with respiratory issues.

present a "minimal risk" for student health.

Also, he believes the hydrogen sulfide detected is coming from outside the school, adding that there are

three potential sources nearby - live-stock farms, a wastewater treatment plant and the county landfill.

See CORTLAND, page A9

Highlights

Seven potential sources of hydrogen sulfide were found in a review of properties surrounding Cortland Elementary - Chestnut Grove lift station, DeKalb County Landfill, Kishwaukee Forge, Cortland wastewater reclamation system, two livestock farms and a swine farm.

Drywall sampling determined that the drywall is contaminated with sulfides, which have the ability to create an off-gas hydrogen sulfide within the school.

Air sampling found that measurable levels of hydrogen sulfide were present inside the school on six of the seven days that sampling was conducted.

Though the source of hydrogen sulfide cannot be attributed to one or several sources, the primary source does not appear to be from the south.

Source: Carnow, Cornbear & Associates, Ltd. draft report

Air to be monitored at Cortland school

• CORTLAND

Continued from page A1

"I don't feel comfortable sending my kids there this fall," said Lea Ann Brei, a mother of three. "I'm sure there's going to be many parents who feel the same way. There's still so much unknown."

Brei said she wanted the tests to be redone because the two sampling methods produced different results.

Hogan refuted her point, saying that the continuous monitor is the solution going forward.

"You don't want to rely on measurements that were made in June to protect you in November," he said.

Several people asked the school board how the monitoring would be conducted and what procedures would be put in place.

"We really want the board to keep the parents notified, whether by the phone, e-mail or the text program that they have in place," Suzanne Skeens said.

The test results and Hogan's assessment - along with letters from the Illinois Department of Public Health and the Regional Office of Education concurring with Hogan's report - will be on the district website today, Briscoe said. He also plans to meet with area officials.

"I do plan to meet with the Town of Cortland, I do plan to meet with Waste Management because we all need to participate," Briscoe said. "Cortland is a community school."

Cortland Town President Bob Seyller attended the school board meeting and said he was encouraged by what he heard.

"All these people who are smarter than me, they really did their homework," he said. "... I hope we can get past this."

During the meeting, School Board President Mike Verbic asked the board whether there were any objections to installing the device, and then directed Superintendent Jim Briscoe to make the purchase "as soon as possible."

Hogan said a rented monitor can be installed in a matter of days at a cost of \$1,500 a month. Purchasing a monitor would take longer, he said, and will cost \$20,000 to \$25,000.

The monitor will be set up to signal an alarm at two different levels of the gas, "conservative" levels set by the federal Agency for Toxic Substances and Disease Registry, Hogan said.

The first minimal risk level, 0.02 parts per million, is for intermediate exposures, up to one year. The second level, 0.07 ppm, is for shorter-term exposures, up to two weeks.

If 0.02 ppm is detected, a written plan of action should be followed to contact nearby hydrogen sulfide emitters, but the school does not need to be evacuated, Hogan said.

Levels above 0.07 ppm also do not require an evacuation, as long as the average levels are below 0.07 ppm for any length of time less than two weeks.

The device can be moved to other locations inside or outside the school to test the air or to pinpoint a source of the gas, Hogan said.

Testing was performed from June 23 to July 7 by Chicago-based environmental consulting firm Carnow, Conibear & Associates, Ltd. after preliminary testing in May revealed measurable amounts of hydrogen sulfide in and outside of the school.

The additional testing also included drywall sampling and a review of historical records and surrounding properties.

Hogan explained the two methods used by Carnow. One, a charcoal tube, collects air and tests it in a lab. The other, a Jerome instrument, takes a direct reading of hydrogen sulfide that can measure extremely low concentrations in a matter of seconds.

In some instances, the charcoal tube method found concentrations almost 100 times higher than the Jerome method, according to Hogan's report. This, he said, "did not make sense with the reality" and he did not rely on the charcoal tube method's results when analyzing the results.

The inconsistency between the methods raised some red flags for parents.

Cortland air monitor to be installed today

By CATHY MULLEN
cmullen@daily-chronicle.com

DeKalb - DeKalb Schools Superintendent Jim Briscoe said a hydrogen sulfide monitoring unit will be installed today at Cortland Elementary.

At last week's special school board meeting, certified industrial hygienist Ted Hogan presented his analysis of test results conducted around the school to measure levels of hydrogen sulfide, a colorless gas that is a natural byproduct

of decomposition.

The district decided to test for the gas after preliminary testing in May revealed measurable amounts of hydrogen sulfide in and outside of the school. During a special school board meeting last week, Hogan recommended that the school was safe and that the recently measured hydrogen sulfide levels present a "minimal risk" for student health. He also said the gas was coming from outside the school.

Hogan also recommended to the district that a monitoring unit be installed in

the school to constantly monitor levels of hydrogen sulfide in the air. Briscoe said Hogan will bring a temporary monitoring unit to the school today.

Briscoe said it would not be long before a permanent unit is installed at the school. School Board President Mike Verbit said the board has asked district staff to bring to the Aug. 17 board meeting details of a comprehensive plan of what the district will do if hydrogen sulfide levels get too high.

See CORTLAND, Page A9

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Contingency plan to be in place in case of high hydrogen sulfide levels

• CORTLAND
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The unit Hogan has recommended to Briscoe is a Honeywell SPW unit for hydrogen sulfide, which Briscoe said costs \$7,500, and that Briscoe assumes that is the unit Hogan will bring to the school. Verbit said staff should be trained to use the monitor by Friday.

The contingency plan, the district is creating will include how to notify parents and steps to take in case hydrogen sulfide levels reach a point that is unsafe for students, Briscoe said.

Parents will be notified if hydrogen sulfide levels are high enough that the air smells of it, Briscoe said. Those that manage potential sources of the gas -- the Town of Cortland for

"Anything that comes up like this, it's coming out of our pocket. But you don't compromise student safety. That's the reality."

Jim Briscoe
DeKalb schools superintendent

the wastewater treatment plant and Waste Management for the county landfill -- also would be notified, he said.

If the smell of hydrogen sulfide remains at a level of .07 parts per million for two weeks, Briscoe said, the district would consider shutting down the school. Such a plan is nec-

essary for the school, he said, just as a tornado drill is for all schools. He wasn't sure yet how the district would notify parents in such a situation.

"We don't want to be alarmist ... but we have to come up with a plan of how we will notify parents and when," he said.

Briscoe said he plans to get in touch with the Town of Cortland and Waste Management to find out what their plans are to monitor levels of hydrogen sulfide. He also said he hopes to set up a meeting with Cortland Elementary parents before school starts Aug. 28.

Briscoe said the district is working hard to make parents feel comfortable, though he pointed out that Hogan, the Illinois Health Department and the Illinois Association of Regional Superintendents of Schools

have all agreed that Cortland Elementary School is safe for children. Briscoe said another certified industrial hygienist, Geoff Bacci with Aires Consulting Group Inc., will be the district's next consultant with regard to the hydrogen sulfide monitor, though Briscoe couldn't say how often Bacci would be at the school to monitor levels of the gas.

"We told the parents we were going to do that, so we're going to," Briscoe said.

"... My concern is getting a unit in as soon as possible." Though the monitoring unit isn't cheap, Briscoe said there's no alternative for the district.

"Anything that comes up like this, it's coming out of our pocket," he said.

"But you don't compromise student safety. That's the reality."

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The Delicate Balance by Dr. Aubrey J. Serewicz

While Waste Management is jockeying for position and the School Board is pondering the bad hand it was dealt, the parents of Cortland are left in a quandary.

They need not be. Hydrogen Sulfide is not some new plague. The science of the damage it can wreck on people has been known for decades. The Federal EPA has spearheaded this study but Congress has allowed it to remain toothless. Just like with the West Nile Mosquito and the Lyme Deer Tick, parents will have to protect their children.

Every molecule of H₂S eliminates one molecule of Copper within the child's liver. There is no immunity to H₂S, there is only reserve. The Copper in the liver helps to build white blood cells and to construct strong blood vessels. A normal 7 year old child with a healthy diet has a liver Copper concentration of 35 ug/g. With an average size liver of 110 g there should be a reserve of 3200 ug of Copper.

If we take a current case scenario from the report by C, C and A at Cortland School, the initial .080 ppm analysis can be shown to contain 160 ug of H₂S in 1470 liters of air. 1470 liters of air is also the volume of air that a 7 year old might breathe during a 7 hour school period. Since a 7 year child needs 400 ug of Copper per day this child could incur a deficit of 160 ug from its reserve. Unless this is compensated with increased copper, this reserve could fall below the 25 percentile level in 10 school days. A content of 15 ug/g in the liver could result and enter the critical range. From the actual reading in a classroom of .38 ppm and .62 ppm out of doors it is possible to gauge the potential range of the problem.

What happened to the children in the 2009-2010 school year? How could they now be protected? Copper concentration in the liver can be determined by a liver biopsy. Conveniently, though, hair analysis is an acceptable substitute and does reflect long term Copper status. In fact, a recent study of adults living within .4 miles of this landfill was conducted by hair analysis. The landfill adults showed an average Copper concentration of 9.75 ug/g, while adults living at least 3 miles away tested at 29 ug. In addition, all of the landfill adults had critical cardiovascular problems. Veterinary Laboratories run hair analysis on valuable animals all the time. If a physician doesn't know what to do with the hair analysis data a veterinarian can help.

Navarro and Wood (2003), Journal of Nutrition, determined that multi-mineral supplements had little short term effects with Copper. Fortunately, foods high in Copper are the best protection you can give your child. Consulting the USDA

ENVIRONMENTAL ISSUES

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National Nutritional Database one will find these as highest in Copper. They are listed here in ug/oz: liver 2683/oz, cashews 633/oz, pacific oysters 452/oz, almond butter 257/oz, peanut butter 163/oz. Quaker Oat Granola 103/oz. How much does your child need? It depends on their current copper status and knowledge of the H2S burden from the landfill. Currently, the instrumentation that Waste Management is obliged to use to monitor their site activates at above 10 ppm.

One thing is certain. Don't wait for help from your County or Village government.

This entry was posted on August 8, 2010, 10:06 am and is filed under [Air Quality Cortland Elementary](#), [waste management](#). You can follow any responses to this entry through [RSS 2.0](#). You can [leave a response](#), or [trackback](#) from your own site.

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Daily Chronicle, The (DeKalb, IL)

August 19, 2010
Section: Opinion

Our View: Use meeting to get informed

DeKalb School District 426 is hosting an informational meeting tonight for parents of students at Cortland Elementary School. The focus of the meeting is to discuss the monitoring of air quality at the school in the wake of hydrogen sulfide concerns that came to light in the debate surrounding the expansion of the DeKalb County Landfill. Hydrogen sulfide is a colorless gas that is a natural byproduct of decomposition.

Parents, rightly so, have expressed concerns about their childrens' safety. Many questions have been asked. Many statistics have been thrown around. A lot of confusion has surfaced.

Hopefully, tonight's meeting can answer those questions and address parents' concerns. We encourage every parent, neighbor, and concerned citizen to attend tonight's meeting. Get informed. Ask questions. Voice your opinion.

The meeting starts at 6 p.m. today at Cortland Elementary School, 370 E. Lexington Ave., in Cortland. It will include a presentation from an industrial hygienist, who will share data collected from a hydrogen sulfide monitor that was installed at the school this month.

DeKalb Schools Superintendent Jim Briscoe said measurements have been near zero since the monitor went in. The district decided to test for hydrogen sulfide after preliminary testing in May revealed measurable amounts of the gas in and outside of the school.

After the additional testing, industrial hygienist Ted Hogan recommended that the school was safe and that the recently measured hydrogen sulfide levels present a "minimal risk" for student health. He also said the gas was coming from outside the school.

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How did you get to school as a kid?

walked

Part of tonight's meeting also will include the sharing of an emergency plan and action that will be taken should the monitor indicate unsafe levels of the hydrogen sulfide.

- got a ride with a parent
- bus
- rode a bicycle

Please, take this opportunity to educate yourself on hydrogen sulfide, how dangerous it can be, and, more importantly, its effect on Cortland Elementary School.

Show results

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Copper Sampling Kits Available

As you know Dr. Serwicz has completed extensive study on the effects of H2S on the depletion of metals in our body, especially copper. You can read some of his information about this further down on posts to this web page. He has offered as a service to the community to coordinate hair sampling analysis to determine what if any effects may have occurred to your body due to exposure to the air from the DeKalb County Landfill. Please read the information below for how you can have your hair or your child's hair annualized for only \$15. He will do this for you regardless of where you live in the county. I hope you take advantage of this service he is providing to the citizens of our county.

Copper Hair Analysis removes one less health worry.

It's simple. It's easy. It's painless.

1. Collect a 1/2 oz lock of hair from the nape of the neck
2. Fill out the coded identity label.
Initials (X Y Z), Birth numbers (0x 0x __xx) Gender M/F
3. Put hair sample in plastic bag.
4. Write a check for \$15 to Hair Sample, [SMD, Hair Test](#)
5. Enclose sample bag and check in envelope and mail to SMD Test, P.O. Box 363, Dekalb 60115.

In 2 weeks you may pick up the results at the NBT bank, 155 N 3rd St. by identifying the report with the coded identity number. You will also receive a complimentary copy of THE BIOCHEMISTRY OF COPPER by Earl Frieden. All data is confidential.

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Cortland School H2S Monitor Not Functioning

On August 30th Dr. Serewicz went to Cortland school to see the testing apparatus. He was refused entry. So he went to talk with Dr. Briscoe. Dr. Serewicz was then allowed a tour of the equipment at Cortland Elementary at 10 am with Ray Faivre the head custodian of Cortland school.

The following is what Dr. Serewicz reported seeing:

"The equipment is connected and charged, but not functioning. It is correctly set at ppb and there is a paper cassette in place, but there is no movement and no take-up reel. The intake hose is in the hall but set too high. For adults for VOC it should be between 3 and 5.5 feet. For H2S it should be a maximum of 3 feet from the floor. For children it should be proportionally lower. I explained this to Mr. Faivre. He assumed that the cleaning machines might give false positives and I explained no H2S comes from the cleaning machines. I asked him to call me when the Honeywell testing begins."

Mr. Briscoe is supposed to be contacting the company about this.

The link below to Dr. Serewicz's full written report, found at DeKalb County On-Line, also points out that the intake tube is not in the proper location to provide the best reading for the protection of children. H2S, a toxic gas that is heavier than air, can not be adequately tested with an intake tube that is up by the ceiling. Dr. Serewicz states that for testing H2S the intake tube should be at a maximum height of 3 feet. "For children it should be proportionally lower."

Also Dr. Serewicz has contacted and received the go ahead to work on a joint project with two NIU professors related to the H2S and the DeKalb County Landfill operated by Waste Management Inc. Professor Jie Song of the NIU Geography Department and Wendy Bostwick, PhD of NIU Public Health Department. They are going to work together on a project using copper in hair as a marker for affects of H2S, a very poisonous gas that is released from landfills among other possible sources. Dr. Serewicz and the NIU professors will be working on a proposal to present to the National Institute of Health (NIH). This is ground-breaking research that is creating the important foundation for future study in the area of affects of H2S on children and adults. Hydrogen sulfide is generating many studies across the scientific community now that its been classified as a toxic gas.

<http://dekalbcountyonline.com/2010/09/05/h2s-monitor-connected-and-charged-but-not-functioning/#more-20042>