Asbestos Fear at Oak St. Beach

'THEY SHOULD RETEST' | Watchdog group says 2005 sampling done poorly, tainted

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BY CAROL MARIN AND DON MOSELEY Staff Reporter/NBC5 producer

Oak Street Beach needs to be retested for asbestos because previous tests for the cancer-causing substance weren't done properly, a scientist on the U.S. Environmental Protection Agency's asbestos advisory board is urging.

"They should go back and retest," said the scientist, James Webber, who teaches at the State University of New York in Albany.

In 2004, University of Illinois at Chicago scientists found asbestos fibers in 11 of 12 samples taken at Oak Street, the city's signature beach. It was a surprising and troubling finding. Inhaled asbestos fibers can cause a cancer called mesothelioma. Another concern: The most deadly form of asbestos -- amphibole -- was found at Oak Street.

The Chicago Park District ordered new tests. These found only extremely low levels. And Oak Street, which draws hundreds of thousands of beachgoers every summer, was deemed safe.

But now Webber and the environmental watchdog group the Illinois Dunesland Preservation Society are questioning those 2005 Park District tests over how they were done and who did them.

The how: During testing, the air-filter pumps used by the company hired by the park district became clogged and inoperable. So the company switched to air filters that wouldn't clog so easily -- but which, as a result, might not be sensitive enough to detect most asbestos, according to Webber.

Jeff Camplin, an asbestos consultant with the Dunesland Preservation Society, agrees: "They just made the filters larger, therefore trapping less asbestos and therefore identifying that there would be less of an airborne hazard."

The who: The environmental group also questions the Park District's choice of the company Levine Fricke to do the testing. Levine Fricke is a consultant to manufacturer Johns Manville, whose closed Waukegan plant -- now an EPA Superfund site -- has been described by the Illinois attorney general's office as a potential source of asbestos pollution in Lake Michigan.

The Park District and Levine Fricke declined requests for interviews. Responding to e-mailed questions, the district said Levine Fricke is a nationally recognized company and that "it is highly unlikely" that changing the filter size "would have a substantive effect on study results."

Still, the EPA Superfund chief in Chicago has asked for a review of the testing.

There has been a new call for asbestos testing at Chicago's Oak Street beach.
(John H. White/Sun-Times file)
Video: New Beach Tests Called For

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CHICAGO -- NBC5's Carol Marin reported on Monday about a call for new tests for asbestos at Chicago's Oak Street Beach. The following is an edited transcript.
Marin: "In 2004, the state of Illinois discovered something that surprised even the U.S. EPA: Asbestos fibers at Oak Street Beach. With the beach's safety in question, the Chicago Park District, which oversees Oak Street Beach -- commissioned a test to determine if asbestos fibers in the sand were also, more dangerously, in the air. That study declared the beach is safe.
"According to our Unit 5 investigation, there are serious questions about how the study was conducted.
"It is Chicago's premier beach, where young and old head on a summer day. In 2004, a University of Illinois Chicago study found asbestos fibers here in 11 of 12 samples, including the most dangerous form of asbestos fiber, amphiboles. Last summer, we asked the U.S. EPA about the discovery of amphibole asbestos at Oak Street Beach."
Marin: "Does that worry you?"
U.S. EPA official: "It, I think, it certainly, is an area that surprised us."
Jeff Camplin, private environmental professional: "Oak Street Beach was found to have the highest concentration of asbestos."
Marin: Jeff Camplin, a private environmental professional, told us last summer he believes the asbestos made its way to Chicago from 40 miles to the north from Illinois Beach State Park. Located near Waukegan, the park has a history of asbestos pollution washing up on its shore. Camplin believes the asbestos may have simply followed Mother Nature's path south."
Marin: "So, all of this asbestos is traveling down the beach line?"
Camplin: "Like a freight train it is."
Marin: "One of five potential sources, according to the state, is the former Johns-Manville site, which sat on the south end of Illinois Beach State Park, and for decades manufactured insulation and building materials.
So who did the Chicago Park District turn to do its asbestos testing out here at Oak Street Beach? It picked a company called Levine-Fricke, that would the same company that works as a consultant for the Johns-Manville.
For many months now, we've tried to talk to the Chicago Park District with a number of questions. Among them -- Why they chose to hire Levine-Fricke as a consultant, when the company might have a conflict of interest?
For all of those months, the Chicago Park District has steadfastly refused to do an on-camera interview. We wanted to ask the U.S. EPA the same questions. They wouldn't go on camera either. And neither would Levine-Fricke.
Almost from the beginning, the Oak Street Beach tests ran into trouble. In such tests, filters are used to catch asbestos fibers. But Levine-Fricke report states that due to "the filter's small pore size," they had to change and "larger filters were substituted" to collect the asbestos fibers.
Levine-Fricke says, with the permission of the EPA, it switched filters from from a 0.45 to .8. That would be like substituting a smaller, finer coffee filter, for instance, through which few fibers might escape, and substituting a larger, coarser filter, through which more asbestos could escape.
Webber: "Switching to a .8 micron filter is not appropriate."
Marin: "Dr. Jim Webber, a research scientist at the State University of New York and an EPA certified expert, told us the switch could allow short, thin asbestos fibers to escape, which could skew the results."
Webber: "I think they should go back and retest."
Marin: "Both Jeff Camplin and Paul Kakuris, president of the Illinois Dunesland Preservation Society, argue changing the filter size potentially changed the results and opens questions as to the safety of Oak Street Beach.

Camplin: "They just made the filters larger, therefore trapping less asbestos."
Kakuris "They changed the filters. So, they skewed the tests and that's corrupt science."
Marin: "The park district and Levine-Fricke in a written statement acknowledged the relationship with Johns-Manville, but wrote Levine-Fricke, which is also known as LFR, is a nationally-respected company, and reiterated it was an EPA official which approved the use of the larger filter.
"The U.S. EPA in a written statement said all questions should be directed to the Chicago Park District, but told us (Monday) morning that last month, they asked an arm of the Centers For Disease Control to review the Oak Street Beach tests.
More in (Tuesday) morning's Chicago Sun-Times"

Previous Stories:
September 5, 2007: Unit 5: Scientists Comb Suburban Beach For Asbestos
August 17, 2007: Unit 5 Follow-Up: EPA To Test State Park Beach
August 2, 2007: Unit 5 Study: Asbestos Easy To Find On Public Beach
July 26, 2007: Part 2: Officials Differ On 'How Safe Is Safe?'
July 25, 2007: Unit 5: Asbestos Cloud Hangs Over Area Beaches

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EPA reviewing asbestos levels at Oak Street Beach

Dangerous levels on beach adjacent to Superfund site could spread

By Laura Putre
Contributing writer

Nature-lover Paul Kakuris spends a lot of time at Lake Michigan beaches these days, but not for recreation.

The president of the Illinois Dunesland Preservation Society, an environmental group that monitors the shoreline, Kakuris is on the prowl for bits and pieces of asbestos that have washed ashore-remnants, he said, of toxic sites near Illinois Beach that travel south with the currents.

The asbestos situation is so bad at Chicago beaches, Kakuris said, he would never take his family there-just playing in the sand could put them in contact with harmful levels of cancer-causing asbestos.

"Asbestos sticks to clothing-it sticks in your hair," Kakuris said.

And the tiny fibers can't always be washed off-you can breathe in dangerous amounts of airborne microscopic particles. The effects of asbestos exposure often don't show up until 15 to 20 years later.

Particularly high asbestos levels were measured at Oak Street Beach in a 2005 study conducted by the Illinois Attorney General's Office and the University of Illinois-Chicago. A follow-up study in 2006 commissioned by the Chicago Park District disputed those levels.

But earlier this week, the U.S. Environmental Protection Agency confirmed that it has asked the U.S. Centers for Disease Control to review the park district study.

According to the study, park district workers switched filters on the pumps they were using to collect samples when the filters became clogged. The new filters were more porous, and may have allowed asbestos fibers to pass through undetected, Kakuris contends.

"On a microscopic level, it was like switching out a window screen with chicken wire," Kakuris said.

Samples from Oak Street Beach were tested for asbestos in 2006 as control samples for a larger study looking into asbestos levels at Illinois Beach, which is adjacent to the remains of Johns Manville, a former lakeside asbestos-product manufacturing plant that is now an EPA Superfund site.

Levine-Fricke, the consulting firm that conducted the park district study, was also hired by Johns Manville to conduct its latest Superfund remediation report, which was submitted to the EPA in 2003.

Park district officials could not be reached for comment by press time.

Every city dweller breathes in a certain amount of "background asbestos," in low levels of about .5 microns, that travels through the air, Kakuris said.

"A little asbestos doesn't hurt you," he said. "This asbestos is different. We're talking about 5 and 10 microns and larger."

Kakuris said he suspects that if other Chicago beaches were tested, the asbestos levels would be similar because they are all affected by the same current heading south from Illinois Beach.

"If you find asbestos at Oak Street Beach, you're going to find asbestos at North Avenue Beach where they play volleyball, all the way down to 55th Street," he said.

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Oak Street Beach Contaminated by Asbestos?

By Peter von Buol Special to Inside Lincoln Park

A Northern Illinois-based environmental group, the Illinois Dunesland Preservation Society, is asking for Chicago's Oak Street Beach to be retested for possible asbestos contamination.

Despite the group's call for additional testing, Jessica Maxey-Faulkner, the director of communications and marketing at the Chicago Park District, told Inside the park district's beaches remain safe and added all previous tests followed the guidelines of the U.S. Environmental Protection Agency.

Asbestos is a name given to six different fibrous minerals amosite, chrysotile, crocidolite, and the fibrous varieties of the minerals tremolite, actinolite, and anthophylite that occur naturally in the environment. Except for chrysotile, all belong to the amphibole family of minerals. While all forms are considered hazardous, and all can cause cancer, amphibole forms of asbestos are considered more hazardous to health than chrysotile, according to the web-site of the U.S. Department of Health and Human Services.

A report published in 2006 by researchers at the University of Illinois at Chicago, had found asbestos at the popular Chicago beach as part of a study which compared the asbestos levels among numerous beaches throughout the state. The study had been conducted so the researchers would have a comparison for the asbestos levels found at Illinois Beach State Park. The Northern Illinois beach is close to the site of a former industrial complex which at one time had manufactured asbestos products and is assumed to have higher than normal levels of asbestos.

According to the executive summary of the report released two years ago, "The Oak Street Beach results were excluded as background [a comparison] because the sand sampling results indicated greater concentrations than other beaches and would have masked the analyses that are fundamental to this study," wrote public health researchers Salvatore Cali, Peter Scheff and Dr. Rosemary Sokas.

Jeff Camplin, who since early 2003 has been a consultant to the Illinois Dunelands Preservation Society, said Illinois Attorney General Lisa Madigan convened a state "task force" to investigate asbestos levels at Illinois Beach State Park after he had a written a report that had described higher than normal levels of asbestos at the northern Illinois beach.

"Attorney General Lisa Madigan appointed a task-force in July 2003 to investigate my charges. The task-force was to compare areas we said were polluted with asbestos to those who were merely "background [normal]" areas. Oak Street Beach was [thought] to be a "background" area. Oak Street Beach ended up having the highest level of the deadly amphibole asbestos contamination along with the statistically high levels in Waukegan and at Illinois Beach State Park," said Camplin.

Camplin said he believes the asbestos found at Illinois Beach State Park and Oak Street Beach come from the same source.

"My group believes the asbestos found at Oak Street traveled down from Zion. The shape of Oak Street Beach was designed to "capture" the sands moving from the North," said Camplin.

Prolonged exposure to asbestos (especially to the lungs) is hazardous to your health but according to the web site of the E.P.A., no studies have been conducted that have measured the short-term effects of the minerals on animals or humans and therefore it is impossible to conclude what would happen to someone who has been exposed to levels found on Illinois beaches.

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Beach asbestos tests challenged

Expert says Oak Street Beach data never validated

By BEN MYERS
Editor

GOLD COAST
In 2005, researchers from the University of Illinois-Chicago discovered amphibole asbestos-a particularly toxic form of asbestos-at Oak Street Beach. It was an unexpected finding. Oak Street was in the study as a "background beach" to compare asbestos levels with Illinois Beach State Park, which is next to property formerly owned Johns-Manville, which manufactured asbestos products at the site through the mid-'80s. It's now a U.S. Environmental Protection Agency Superfund site.

Contamination concerns at Illinois Beach were documented in the 2003 Camplin Report, and Illinois Attorney General Lisa Madigan's office commissioned the UIC study in response. When amphiboles were discovered at Oak Street, some 40 miles down the shoreline from Johns-Manville, it put the EPA in an uncomfortable position.

Jeff Camplin, the independent asbestos expert who wrote the Camplin Report, believes deadly asbestos from the Johns-Manville Superfund site is washing down the Illinois shoreline. He, along with the Illinois Dunesland Preservation Society, has repeatedly challenged the EPA and forced retests at Illinois Beach.

Now Camplin is preparing for another fight. He says the EPA, along with the Agency for Toxic Substances and Disease Registry, are putting a cloak of officialdom over discreditable studies conducted at Oak Street by the Chicago Park District.

Those studies were conducted in 2005; they concluded that Oak Street is safe. There were questions about the tests almost immediately. The first had to do with the park district's choice of consultant to conduct the studies, Levine-Fricke, which also counts Johns-Manville as a client.

Levine-Fricke reached out to EPA Region 5 for "review and comment" on its testing procedures. But the EPA has not been very clear on its role in the testing, other than to say it observed the testing. If anything, the EPA has sought to distance itself from Levine-Fricke's testing.

"EPA had some involvement, we provided advice, not necessarily approval," EPA Region 5 representative Anne Rowan said. "We weren't part of the sampling out there, nor is it Region 5's area of expertise."

But the EPA did turn to a sister agency, the Agency for Toxic Substance and Disease Registry, to review Levine-Fricke's results.

Here is where Camplin takes issue. He said a consultation letter, as opposed to a formal risk assessment study, is not a validation.

"You would never handle it this way. You do a formal risk assessment. Period. That's all you do," Camplin said.

Four activities were tested at Oak Street Beach in four hours to simulate a typical day at the beach: sunbathing, sand castle

construction, playing catch and routine inspection tasks, where a researcher walked the beach.

Camplin said too few tests were conducted for too short a time to show meaningful results; the point of simulating beach activity is measuring a typical amount of dust kicked up on a summer day.

"How crowded is Oak Street Beach during the air show?" Camplin said. "There's tens of thousands of people stirring up dust. Not just a person laying on a blanket."

By comparison, he said the EPA Emergency Response Team took hundreds of samples over the course of 11 days when it conducted activity-based testing at Illinois Beach in 2007.

Camplin noted the EPA's Standard Operating Procedure calls for using a smaller pore-size filter to collect air samples than used by Levine-Fricke.

The filters used were designed to catch relatively long fibers, which are considered most dangerous. The problem, Camplin said, is that amphibole asbestos could be 500 to 800 times as toxic as more commonly found asbestos-which means amphibole fibers could have escaped detection by Levine-Fricke's filters.

"There's certainly no evidence that the shorter fibers aren't toxic," Camplin said. "We still have the knowledge there's elevated levels in the sand. That's not in dispute. There's amphiboles in the sand. What they're trying to say is (the amphiboles) are not harmful."

Camplin noted that the EPA Standard Operating Procedure for testing asbestos recommends the smaller filter.

The EPA Standard Operating Procedure states that it is not intended to be used as a generic plan for asbestos sampling, and may be changed according to site-specific requirements. Camplin noted that the EPA typically designs site-specific operating procedures, based on a number of established protocols. The point, he said, is that researchers demonstrate their intent by describing which protocols they are working from. That never happened at Oak Street.

Levine-Fricke did send a "Work-Plan for Activity-Based Air Sampling" to EPA Region 5 for "review and comment," according to a letter from William Bow, Levine-Fricke operations manager, to Brad Bradley an EPA Region 5 project manager. The letter does not state any protocol for air sampling, but says the plan was "developed with assistance from Region 8 staff."

"They referenced procedures used at all these other sites," Camplin said. "That's just somebody making a procedure up and typing it up on a piece of paper."

Bow was reached by phone Monday morning, but refused to talk in detail without approval from the park district. "What I want to tell you and what I can tell you are two different things," Bow said. "The only thing I can tell you is it wasn't done in a vacuum."

The ATSDR consultation letter says Bradley was "present as an observer" for the Oak Street testing. Bradley was also reached by phone Monday morning, but refused to talk without approval from the EPA press office.

Park district representative Jessica Maxey-Faulkner did not say whether EPA approved of the testing methods, but that EPA was "provided with details every step of the way."

Mark Johnson, senior representative for ATSDR Region 5, said, "We've not conducted an independent validation of the data."

Later, Johnson explained that data validation is a "specific procedure" used by the EPA.

"It's a formal process," Johnson said.

Johnson then said ATSDR went through the "same steps" as the EPA validation process.

"I think it would be appropriate to call it a validation process," Johnson said of ATSDR's review. "For perhaps unknown reasons, there is no formal protocol for data validation for asbestos sampling."

http://chicagojournal.com/main.asp?SectionID=46&SubSectionID=139&ArticleID=4854&TM=44930.43

Chicago's Oak Street Beach Contaminated With Asbestos

CHICAGO, Illinois, May 27, 2008 (ENS) - The Illinois shoreline and Illinois Beach State Park have a long history of asbestos contamination, so as the 2008 beach season opens on Lake Michigan, a conservation group is advising beachgoers how to minimize inhalation of cancer-causing asbestos fibers.

Chicago's Oak Street Beach (Photo by Wally Gobetz)

For at least 20 years, asbestos fibers were released daily and carried southward by Lake Michigan's currents from the Johns-Manville Asbestos Superfund site in Waukegan, Ilinois. The Superfund site is adjacent to the south end of Illinois Beach State Park.

This 150-acre asbestos disposal area contains about three million cubic yards of off-specification products and wastewater sludge containing asbestos, and to a lesser degree, lead and chromium, according to the U.S. Environmental Protection Agency, EPA.

Water from this Superfund site is periodically released into Lake Michigan, allowing millions of asbestos fibers per liter of water to contaminate the lake, according to tests conducted by the EPA in May 2002.

Lake currents move the asbestos fibers southward, warns the Illinois Dunesland Preservation Society, and they wash up on the beaches at least as far south as Chicago's Oak Street beach.

The Oak Street beach has the largest area of deep water swimming in the city and is a training ground for hundreds of triathletes, scuba divers and distance swimmers.

Rare amphibole asbestos minerals, several hundred times more harmful to public health than common urban asbestos fibers, exist on the Oak Street beach in Chicago, the Illinois Dunesland Preservation Society warns. If people cannot avoid Lake Michigan beaches, the society is offering tips to minimize breathing asbestos by adults, children and pets.

- **Avoid Eating and Drinking at the Beach! Asbestos and amphibole fibers can contaminate your hands, food, and containers. Eat in picnic areas away from the beach.**
- **Avoid Disturbing the Sand! Microscopic asbestos can be released from the sand when agitated. The federal Centers for Disease Control found that amphibole**

asbestos fibers can be released from wet sand and become airborne.

- **Shower Off and Clean Belongings Prior to Leaving the Beach! The deadly amphibole asbestos fibers can be found wherever beach sand can go. Wash your whole body including hair, ears, and under fingernails. Pets should also be washed down prior to leaving the lakefront and beaches.**
- **Carefully Clean or Isolate Items Used at the Beach! The U.S. Environmental Protection Agency warns, "Don't track material that could contain asbestos through the house."**
  Take care when shaking out towels and blankets that may have come into contact with sand. Remove all beach clothing before entering your car or home. Launder clothing, blankets, and towels separately. Store shoes and hard to clean items outside.
- **Avoid Certain Cleaning Methods! Do not dust, sweep, or vacuum debris that may contain asbestos. According to the EPA, "These steps will disturb tiny asbestos fibers and may release them into the air." The use of High Efficiency Particulate Air, HEPA, filtered vacuums is recommended for cleaning up toxic dust and fibers.**

These tips were compiled by Jeffery Camplin, an Illinois licensed asbestos professional and nationally recognized asbestos safety risk expert.

The Illinois Dunesland Preservation Society asked Camplin to review studies by the EPA, and the federal Agency for Toxic Substances and Disease Registry, ATSDR, as well as state studies and tests of asbestos from the Johns-Manville Superfund Site.

Camplin concluded that the studies were "deeply flawed and severely lacking in standardized scientific protocols."

Illinois Dunesland Preservation Society President Paul Kakuris said angrily, "Officials rigged studies and tests to cover up their involvement in obstructing and not enforcing pollution hazard violations against polluters facilitating and dumping asbestos fibers into the drinking water supply."

"Waves wash fibers onto the beaches where sand releases asbestos during beach activities," Kakuris said, "exposing millions of unwitting victims to deadly asbestos fibers while corrupt public officials and polluters' consultants rigged studies, using government funds."

But EPA Region 5 officials said on May 2 that their public health agency partner, the ATSDR, issued a formal consultation letter that validates the technical approaches used in a study "to assess potential exposures to low levels of asbestos found at Chicago's Oak Street Beach."

The study was conducted in September 2005 by LFR Inc., an Elgin, Illinois contractor retained by the Chicago Park District. The study evaluated whether people could be exposed to asbestos while engaging in typical beach activities, such as playing catch, building sandcastles and sunbathing.

The ATSDR letter states, "The air samples collected contained asbestos concentrations consistent with levels that would be expected in urban areas and that recreational activity at Oak Street Beach does not pose a public health hazard."

"ATSDR's review of the data collected by the Chicago Park District in 2005 provides an extra level of assurance that the Oak Street Beach testing was appropriate and sufficient to reach a public health conclusion," said Regional Superfund Director Richard Karl. "Going forward, EPA and its federal partners will continue to be available to the park district for consultation as requested."

However, the EPA admits in the description of the Johns-Manville Superfund Site on its

website, "Air sampled in the vicinity of the site contained asbestos fibers. Groundwater contained asbestos, arsenic, and several volatile organic compounds, VOCs. Waste materials and sludge were contaminated with asbestos, heavy metals, and VOCs. The most significant threat to public health prior to cleanup was the inhalation of asbestos fibers. The site was dusty during dry periods and posed health concerns to the surrounding communities and to the onsite workers."

Since asbestos fibers may cause harmful health effects in people who are exposed, all new uses of asbestos have been banned in the United States by the EPA.

Search the asbestos links on NBC5:
http://www.nbc5.com/search/form.html?stories=on&video=on&la=en&qt=asbestos