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'99 report raised concerns about waste, environment

By Gitte Laasby

Post-Tribune staff writer

BURNS HARBOR -- ArcelorMittal representatives and government officials dismiss questions about what is in the steelmaking waste pile, what impact it might have on the environment and whether the company's test results can be trusted.

The waste isn't hazardous and is only stored outside until it's recycled, they say.

But a 1999 report from Bethlehem Steel Corp. to the U.S. Environmental Protection Agency raises questions about the safety of disposing of the waste without any protection to the environment. It also states the company had stopped recycling some of the waste more than a decade earlier.

The report reveals that the kind of waste dumped on ArcelorMittal's Burns Harbor property contains so much lead, chromium, cadmium, silver and nickel that it would take a restricted waste landfill to dispose of it legally. The report also stated that some treatment plant sludge remained dumped on the ground 14 years after the company stopped recycling it.

"Most of the (secondary wastewater treatment plant) sludge was removed ... and recycled at the Sinter Plant. However, a mixture of (secondary wastewater treatment plant) sludge and (basic oxygen furnace) sludge remains in the area. The area has been inactive since June 1985," Bethlehem Steel stated in the 1999 report.

The company also self-reported that "small remnants" of blast furnace waste "may still be present in the area."

As the superintendent of environmental services from 1994 to 2000, Tom Easterly was in charge of environmental matters at the company when the report was submitted.

Federal and state environmental agencies accepted Bethlehem's -- and later ArcelorMittal's -- explanation that the waste was being recycled in the sinter plant. That makes it legal to stockpile it for up to six months.

"The pile that is currently in this area is being reused," Margaret Guerriero, director of the land and chemical division at EPA Region 5, recently told the Post-Tribune.

"Historically, this area was used as a staging area for waste materials such as mill scale, secondary wastewater treatment plant sludge, and construction debris. These materials are no longer staged in this area."

Despite the company's assurances that the material is being recycled, the piles have kept growing. Today, hundreds of thousands of tons of gray slag, bricks and rusty metal pieces are still sitting directly on the ground at the plant, awaiting a permanent resting place.

The Post-Tribune asked why the piles are getting larger if material is being recycled.

"Some of these piles are still being managed as raw material subject to recycling," Guerriero said in an e-mail. "Some of the waste material is also being recycled whereas some waste, such as filter cake, is not. The proposed landfill will provide a solution for disposal of waste materials which are no longer being recycled such as the secondary waste water treatment sludge."

The company isn't clear about what it intends to do with the waste, citing both recycling and landfilling as options. The Indiana Department of Environmental Management says ArcelorMittal has applied for a permit to build a landfill, but did not list the waste piles in the northeast near the lakeshore among the waste it intends to landfill.

Impact on environment

Since Bethlehem's 1999 report, there have been no official investigations into how the waste is impacting air, soil and groundwater.

At the time, the consulting company that tested the waste for Bethlehem said none of the four kinds of waste dumped in the area contained pollutants in concentrations high enough to be considered hazardous.

Soil samples could have determined whether pollutants were leaking from the waste to the ground. But the company avoided taking any samples, saying there was no natural soil to which it could compare the results. That's because Bethlehem Steel was built on sand, construction waste and other material that the company got permission to fill into Lake Michigan between 1962 and the early 1970s.

In groundwater, Bethlehem's consulting company found arsenic, barium, chromium, lead, mercury and selenium.

Lead in drinking water can cause a variety of health effects, such as delays in physical and mental development in children, and slight deficits in attention span and learning. Arsenic is linked to lung, kidney and prostate cancer.

The company said all pollutants were below "safe" levels, meaning no further investigation or remediation was needed.

The consulting firm said it subjected some of the waste samples to worst-case scenario tests and found little leaching. It concluded that test results for waste, groundwater, surface water and air were "below conservative screening levels. No further action ... is recommended or warranted."

EPA did not do its own testing, but used the company's results to draw the same conclusion in 2006.

"Based on the sample results, it was determined that the groundwater at that area met the screening levels and no further investigation or action was warranted," EPA said.

EPA raises questions

But some environmental monitors find it hard to believe there is such a thing as a "safe level" of toxic contaminants in an area with porous, sandy soil. Internally, EPA also questioned whether decade-old tests taken by a consultant company and paid for by the company can be trusted.

EPA e-mails from July this year obtained by the Post-Tribune show EPA managers questioned the validity of Bethlehem's 1999 test results on another waste pile at the facility, 700,000 tons of blast furnace waste stored by the Port of Indiana.

"If the waste pile was characterized over 10 years ago, then any information on what's in the pile is suspect, based on the long time that has passed and the possibility that the pile has received additional material since the ... sample was taken," wrote Jose Cisneros, chief of the Remediation and Reuse Branch at EPA region 5 in an e-mail on July 13 this year to Lorna Jereza, chief of compliance section 1 at EPA region 5's enforcement and compliance assurance branch. "If the only sampling of the pile for the permitting of the proposed landfill was done by the company then I am not sure how confident we can be about its results."

Also of concern to ArcelorMittal worker and Save the Dunes member Larry Davis is the geology. Groundwater flows 13 to 23 feet below the surface just south of the northeast waste area, but only "roughly one foot below ground surface" at the north end near Lake Michigan, according to Bethlehem's report. It says groundwater flows north toward Lake Michigan, the source of drinking water to most Northwest Indiana residents.

"It used to be the shore of Lake Michigan. So you know it's directly hydraulically connected to the lake -- its aquifers or actually in the lake," Davis said. "As far as its composition ... it's going to be a lot of heavy metals. Most ... are going to be higher in pH, which is sort of good because that helps buffer some of the metals from being leached out, but it loses that capacity over time."

A confidential source at IDEM said the main concern is that the piles have been left outside for years without environmental controls on them.

"The material's been left out there uncontrolled. It's a waste pile and they've never done anything to control emissions to air, land or water," the source told the Post-Tribune.

"This waste pile, whenever you waste pile something, you call it waste because you never intend to go back and get it."

BOXES:

What's in the waste?

Here are some of the results Bethlehem Steel Corp. got when basic oxygen furnace waste was tested 10 years ago. The sample that was tested was made up of smaller portions of several samples rather than a single sample. That means results can be considered an average of what's in the waste. They do not show "hot spots," which can contain much higher concentrations.

The numbers in parentheses refer to how protective of the environment a landfill would have to be to accept the waste. The landfill that requires the least environmental protection is type 4. The most protection is required for type 1.

Arsenic: 0.01 mg/l (type 4)

Cadmium: 0.1 mg/l (type 3)

Chromium: 1 mg/l (type 2)

Lead: 3.4 mg/l (type 1)

Nickel: 0.24 mg/l (type 3)

Silver: 0.39 mg/l (type 3)

Source: Bethlehem Steel Corp. facility investigation report to the U.S. Environmental Protection Agency October 1999

About this story

This two-day package is a result of a several-month investigation by the Post-Tribune.

Reporter Gitte Laasby examined the 3,000-page landfill permit application from ArcelorMittal and hundreds of pages of historical records about Bethlehem Steel.

She also requested public records from the Indiana Department of Environmental Management and the U.S. Environmental Protection Agency, including e-mails between managers, inspection reports, hazardous waste investigation reports, maps and correspondence between ArcelorMittal and IDEM.

A confidential source at IDEM also provided information.

If you go

Public meeting

What: ArcelorMittal public meeting on its proposed landfill to provide information about what's in the landfill application.

When: 3 p.m. Wednesday, Nov. 18

Where: Burns Harbor Town Hall, 1240 N. Boo Road.

Public hearing

What: The Indiana Department of Environmental Management public hearing on ArcelorMittal's proposed landfill.

When: 6 to 9 p.m. Wednesday, Dec. 2.

Where: Northwestern Indiana Regional Planning Commission auditorium, 6100 South Port Road, Portage.

View the permit

To read ArcelorMittal's 3,000-page landfill permit application, visit the Westchester Public Library, Indiana Avenue in Chesterton. You can also visit IDEM's virtual file cabinet online <http://bit.ly/19tbT4>. Under "facility," search for "Deerfield Storage Facility." Look at the first four documents.

Editor's Note

On Sunday the Post-Tribune reported on a towering pile of steelmaking waste that sprawls across the northeast corner of ArcelorMittal's Burns Harbor grounds, a few hundred yards south of the Lake Michigan shoreline.

The waste has been open to the environment, some of it for as long as 24 years, but state and federal environmental regulators haven't objected. ArcelorMittal says the material is awaiting disposal in a landfill or recycling. The U.S. EPA told the Post-Tribune as far as it's concerned the material is awaiting recycling. The Indiana Department of Environment declined to comment on the pile. IDEM staffers know the waste as "Easterly's pile," named after that agency's boss. Tom Easterly was head of environmental management at the steel plant (then Bethlehem Steel) from 1994 to 2000. During his tenure, the waste pile got its start.

Today, Post-Tribune reporter Gitte Laasby follows up with reporting about what is in the waste, its potential impact on the environment and the difficulty in finding ArcelorMittal environmental records inside of IDEM.