

## Lafarge Tour Takes Officials, Residents Under South Elgin Rock

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Visitors to Lafarge Fox River Quarry in South Elgin were treated to views that appeared to come from science fiction movies. (Jon Cunningham / The Courier-News)

Each day thousands of motorists pass by the rock mining operation that sits on the southern edge of South Elgin between Route 31 and Stearns Road and stretches from east of McLean Boulevard to Randall Road.

While those motorists and neighbors to the north and south can see the above-ground rock piles and often hear the rock-separating machinery at the Lafarge Fox River Quarry, the operations below ground are a mystery to many.

Other than vibrations from daily blasting of new mining sections, they are unaware that 300 feet below the surface lies a honeycomb of 50-foot square, 27-foot high rock pillars holding up the ground above. Between those pillars, 45-foot square sections of rock have been blasted, drilled and hauled out of the mine.

On Saturday, officials from LafargeHolcim invited village officials, neighbors and reporters to tour the underground mine. About 50 people took them up on the offer.

"We want to be your partners in the community," said Matt Tripp, plant manager.

Tripp has been attending South Elgin village board meetings for the past several months, giving trustees updates on operations there. After several years of a rocky relationship with the village, discussions started again when area teens began attempting to swim in the old quarry near Randall Road. That quarry, which Lafarge used to pump out, began collecting water 18 months ago, Tripp said. Lafarge has, at the village's suggestion, hired security officers to keep the teens out of the dangerous site.

Lafarge North America, which also operates the Conco Western Quarry in North Aurora, purchased the mine in 2007, according to the company's promotional material. The previous owners had only the technology to get rock, sand and gravel from the surface, explained Tripp.

Lafarge — which merged with Holcim this summer — has the technology to mine the high-quality limestone underneath. There is enough limestone in the 296-acre site — going down three levels — to keep the mine in operation for 70 to 100 years, said Justin Besancon, senior mine engineer at the quarry.

It also is some of the most highly-sought rock for northern Illinois construction projects, used on the ongoing Interstate 90 construction project between Elgin and Chicago, area concrete and asphalt plants, and for the previous O'Hare International Airport runway expansions, Tripp said.

After a safety briefing, that also covered the use of respirators in case of a fire, the visitors were loaded into school buses.

The buses went down the 1,800-foot ramp, set at a 17-degree grade, that brings workers and machinery 300-plus feet below. Those massive machines and their operators navigate a grid of stone blasted out of the Kane County limestone — limestone that is 400 million to 500 million years old and laid when North America was covered by a shallow sea, said Besancon.

Alongside the concrete — and then limestone — ramp runs a pipe. About 60 gallons of water are pumped out of the mine each minute, Tripp said. That naturally-seeping groundwater is then sprayed on the rock piles above to help keep dust down.

It is the same groundwater that supplies the South Elgin waterfall, across the street from the mine in the Kane County Forest Preserve.

Once visitors reach the mine floor, the bus headlights are nearly the only illumination. Although Lafarge brought in light stands to help visitors see in the dark mine, the miner's headlights and machinery headlamps are about the only light underground.

Signs and reflectors lead the way, indicating which section the miners are in and which directions point to the primary and secondary evacuation routes. There have been accidents — a water pump broke and battered a miner pretty well — though there has never been a fire there, Tripp said.

The engineering needed to safely extract rock also includes the engineering needed to vent the diesel fumes and rock dust, bringing bad air out and fresh air in. Walls — of debris and steel — are erected to flow the air where and when it is needed, he said.

Berms along the path separate the mine floor from the next sections — sections where the mine drops to a deeper section. There are three levels spreading out under the mine, each that will eventually be mined for rock. Below that lies a massive underground aquifer, Tripp explained, adding the mine will never get close enough to punch through to the water.

Each day, sections of rock are carefully blasted away. Front end loaders scoop the rock and load them into even larger dump trucks. The rock is moved onto a conveyor belt that raises the rock to the surface along the same ramp the trucks take in and out.

Of the rock taken out of the South Elgin mine, 300,000 tons of "PGE" stones — the substrate used for road construction projects — is going to the I-90 project, Tripp said. Somewhere between 300 and 350 loads of rock are crushed at the mine each day. In addition to substrate rock, they produce aggregate for cement and blacktop, as well as rip-rap for shoreline stabilization.

During the road construction season, from March until nearly Christmas, the mine employees work 70-hour weeks. From Christmas to March, that drops to about 40-hour weeks, Tripp said.

They could work longer hours, he added, and hire more people to mine the rock. The limiting factor is their above-ground hours. The village allows the above-ground operations from 6 a.m. to 6 p.m. on weekdays, and from 6 a.m. to 4 p.m. on Saturday.

No above ground work is allowed on Sundays and holidays.

Back on the surface, the buses go to the old quarry near Randall Road. For years, Lafarge pumped out the water, but Tripp — a fourth-generation miner — suggested they let the water remain instead of pumping it off site.

However, the quarry filled with water and began attracting youth looking for a new swimming hole.

According to their data, 400 people have died in abandoned, water-filled quarries since 2000, Tripp said. In addition to hiring security guards and posting "No Trespassing" signs along the perimeter, officials have met with surrounding homeowner associations, warning parents and children of the site's dangers.

Teens were getting to the pond by sliding down a steep, 60-foot embankment, Tripp said. Parents have called and asked about the security trucks, but have all said they are "on our side" to protect teens from drowning in the quarry, Tripp said.

While Lafarge has held tours before, and hosts safety events in the summer, there is more the company can do to help residents understand what they are doing there, added Joelle Lipski-Rockwood, director of communications. "Our relationship has been pretty good with the village, but we can do better," she said.

*Janelle Walker is a freelance reporter for The Courier-News.*