Levee repair suffers setback

Investigators: Section ‘rotated’ under weight

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Levee repair along a 400-foot section near Buras experienced a setback over the weekend when the section “rotated” under its own weight and independent investigators said Tuesday it’s to be expected.

The rotation caused the top of the levee to sink by a few feet to 6 feet and pushed up dirt about 3 feet high on the land side of the levee, said Jim Taylor, a spokesman for U.S. Army Corps of Engineers’ Task Force Guardian.

Contractors are removing the levee dirt and plan to rebuild it with a stabilizing berm, but the work could take four more weeks, he said. The berm is like a second levee built landward of the levee that acts as a counterweight to prevent future rotation.

The levee repair work is part of the corps’ effort to rebuild levees damaged by Hurricane Katrina to pre-storm strengths.

This particular section of levee was being rebuilt to a final height of 17 feet, Taylor said.

The section used to be topped by a floodwall to gain the needed elevation, but that floodwall was destroyed during Katrina, he said.

Instead of replacing the floodwall along this section, the corps was building a dirt levee up to the required elevation.

“They were at about 15 (feet) when the weight of the material caused the material to rotate,” Taylor said.

Weaker soils under the levee could not hold the weight of the levee itself and slid, much like a bowl placed in a larger bowl would move, he said.

To try to meet a congressionally mandated goal of rebuilding levees to a pre-Katrina level by June 1, the corps has been taking soil samples to measure stability while construction continues. Normally, soil samples are taken before construction begins.

Results from soil borings near Buras came back May 25 and showed that the foundation soils would be too weak to handle the reconstructed levee weight, Taylor said.
He said the corps and contractors had already started talking about how to strengthen the section when it failed just a few days later on Saturday.

“We’re still trying to figure out where the slipping occurred,” Taylor said.

When this type of thing happens, he said it usually happens during construction before the dirt gets a chance to stabilize. Because other levee sections have stabilized without shifting, Taylor said the corps is confidence that other rebuilt sections are OK.

“We’re comfortable that the rest of the system is strong,” Taylor said.

Meanwhile, independent investigators said they were not surprised at what happened.

Robert Bea, a member of an independent levee investigation team led by University of California at Berkeley researchers, said it sounds like the corps is gambling.

“The levees have to be engineered for construction. They must have had soils data BEFORE construction,” Bea wrote in an e-mail. “We will not be able to understand until the details are made available.”

Paul Kemp, a member of the Team Louisiana levee investigation team, said he talked to some geotechnical engineers and they said the “sliding” of the levee is not surprising.

“When they’re trying to build so quickly, some of that is to be expected,” Kemp said. “You’re not supposed to build levees that fast.”

Normally, levees are built to a certain elevation and then allowed to settle before a second layer of soil is placed on top. Kemp said the geotechnical engineers he has worked with said they would have expected this kind of “sliding” in some of the levees.

**Public meetings**

The U.S. Army Corps of Engineers will hold a public hurricane protection system open house from noon to 6 p.m. Thursday at three New Orleans locations. Visitors are asked not to wear open-toe or tennis shoes to the sites. Corps personnel will be available to answer questions about levee repair work at the following locations:

- 17th Street Canal at the Hammond Street Bridge.
- Orleans Canal near the Marconi Drive and Thrasher Street.
- Industrial Canal near the intersection of Jourdan Avenue and North Prieur Street.