## **Hog Farm Gets Green Light to Grow**

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The state water-quality permit that allowed Circle Four Farms to significantly expand its giant hog production factory in southwestern Utah last year will remain intact.

Following a two-day hearing that ended Wednesday night, the Utah Water Quality Board voted 7-1 to uphold a permit issued in January 1998 by the Utah Division of Water Quality.

But the board also suggested that state regulators, perhaps even the Legislature, should do more to prod the corporate hog industry into developing a more environmentally protective way to dispose of the vast amounts of manure produced by the large hog farms.

Currently, the "best available technology," as it is known in the regulatory requirements, is anaerobic lagoons.

In this system, pig feces and urine are flushed from the barns into a series of two giant lagoons, one of which is used to evaporate the liquids and the other to break down the solids through the slow biological process of anaerobic decomposition.

The division made a "reasonable effort" to determine the best available technology, said board member K.C. Shaw, an engineer for Geneva Steel. But he added that the board should encourage advances in technology.

That statement and similar ones made by a state attorney and other board members came as a consolation prize to the loser in this case, Citizens for Responsible and Sustainable Agriculture (CRSA), a Cedar City-based group that challenged Circle Four's latest permit.

"The board is much better informed now on issues involving swine waste," said CRSA attorney Bruce Plenk.

Though CRSA had wanted a revocation or modification of Circle Four's permit, he backed away from that position in his closing arguments after it became apparent the board was going to affirm the permit.

Instead, Plenk pleaded for stricter requirements for any new anaerobic lagoons in Utah.

Several large hog producers are looking to relocate in Utah because of its favorable geography and climate. Plenk said some producers also believe the Beehive State has among the most lax regulations, but witnesses for the stateand Circle Four disputed that claim.

"Utah, without a doubt, is one of the most rigorous states to have to work with," said North Carolina engineer Lawson Safley, a leading consultant for the corporate hog industry in the United States.

Hog farm lagoons in Safley's home state are notorious for their problems, but had the lagoons employed the same regulations required by Utah of Circle Four, the problems would have been eliminated, he said. For example, Utah requires the sewage lagoons to be lined with a 40-mil layer of high-density polyethylene.

Still, Safley and other witnesses for Circle Four acknowledged these lagoons are not ideal. They smell, release volatile gases, can leak, and there is no guarantee the sludge produced by the lagoons will be usable when the lagoons fill in 20 years.

The witnesses also acknowledged there is hope for more suitable technologies.

Among the more promising is one promoted by a Denver company called BION Environmental Technologies. The company has invented a process in which oxygen is fed into the waste to stimulate quicker, less-odorous decomposition. The process uses less water than lagoons.

Circle Four has built a pilot project to test the BION technology, said Erik Jacobsen, the firm's environmental compliance manager. The project will accommodate 40,000 hogs, which likely makes it the largest BION project in the country, Jacobsen said. The BION project costs more to build and operate than the anaerobic lagoons.

Owned by Smithfield Foods of Virginia, Circle Four currently has about 47,000 sows, spread out in two major complexes, one in southern Beaver County and the other in northern Iron County. The sows produce about 650,000 marketable hogs per year. The company's goal is to have 77,000 sows in the next five years that annually will produce 1.5 million hogs per year.