

## **Buffalo River Watershed Alliance**

Comments to ADEQ Re: ARG590001 AFIN 51-00164  
C&H Hog Farm modification request to install pond liners,  
cover and flare on waste ponds #1 and #2.

This modification to install synthetic liners a cover, and a methane flare on the waste ponds is but another example of C&H Hog Farms and Cargill's continued attempts to put a band-aid over a tumor which should more properly be excised.

These lagoons have repeatedly been called "state-of-the-art" and "overbuilt", yet now C & H and Cargill wishes to retrofit with technology which was available and should have been installed at the time of construction. Why? Is it because the lagoons are now leaking and impacting groundwater? If so, ADEQ must investigate, hold them accountable, and close this facility due to the predictable and unacceptable environmental impacts it is creating.

Following are specific reasons why we feel these and all future modifications should be denied.

1) Liquid and solid waste must be removed from the ponds before liners can be installed. Sludge removal will inevitably disturb the existing clay liner. Solids have now infiltrated the clay layer, and likely the underlying soil and groundwater. Disturbing the clay layer may cause embedded waste to further seep through the clay and into groundwater at an accelerated rate. When the Big Creek Research and Extension team (BCRET) built their nearby monitoring trenches, they initially detected very high E. coli levels which

they attributed to soil disturbance during construction. It is reasonable to expect that the same may occur, but on a much larger scale, when the manure impregnated clay layer is disturbed during liner installation. Is there precedence for retrofitting synthetic liners in existing waste storage ponds perched atop karst substrata? Have those performing the installation had experience under these conditions. Has ADEQ? Until proper measures are taken to eliminate and monitor for any groundwater contamination that may result due to construction and installation of the liners, this request should be denied.

2) Swine waste has now permeated the clay liner and some residual will remain after sludge is removed. When the membrane liners are installed over the clay, which contains embedded residual organic waste, decomposition can produce methane and other gasses. This gas accumulation beneath the membrane liner can cause it to become displaced and float to the surface of the pond, perhaps resulting in rupture, seam failure or leakage. Until proper measures are taken to prevent this from occurring this modification should be denied.

3) Seam failure, punctures, mechanical damage, etc have caused membrane liners to fail and leak. These leaks may not be catastrophic but may occur slowly and go unnoticed until groundwater contamination reveals the problem. Leak detection technology is available to determine when such accidents and leakage occur. ADEQ should require such technology and until it is installed this modification request should be denied.

4) The gas flare may impact air quality at the nearby Mt

Judea school, town and nearby residences. The public should be informed of what the levels and components of this discharge will be and what the potential health impacts may be. Until the public is fully informed and an air permit is issued to monitor and regulate discharge this modification should be denied.

5) Buffalo River Watershed Alliance and others have previously and repeatedly described numerous errors, inaccuracies and missing data contained in the C&H NMP. To date, ADEQ has refused to require corrections. This and all future modifications should be denied until all errors, inaccuracies and missing data contained in the NMP are corrected.

6) The Big Creek Research and Extension Team has provided data which strongly suggests that pond leakage is occurring. This modification should be denied until it is determined if the current ponds are leaking and impacting groundwater.

7) On July 17, 2015, Buffalo River Watershed Alliance requested of ADEQ that a public hearing be held in conjunction with this modification request. As of August 5, 2015, we have received no intelligible response to this request. This modification is the most significant major modification requested by C & H to date and the public is entitled to the opportunity for a public hearing on the matter. Because ADEQ has not responded to this request in a timely manner, this modification should be denied until a public hearing can be provided.

Submitted August 5, 2015 by:

Gordon Watkins, President  
Buffalo River Watershed Alliance