

STATE OF ILLINOIS)
) ss
COUNTY OF SANGAMON)

AFFIDAVIT

I, Arlan Juhl, having been duly sworn upon oath, do hereby depose and state:

1. I am of legal age and would be competent to testify to the matters and things set forth herein if called as a witness in this case.

2. I am a licensed professional engineer with over 37 years experience in water resource engineering in Illinois and am the Acting Director of the Office of Water Resources at the Illinois Department of Natural Resources.

3. I have previously toured and am familiar with the levees and communities affected by the current emergency flooding situation in southern Illinois related to the Ohio and Mississippi Rivers, and their tributaries.

4. I am also familiar with the U.S. Army Corps of Engineers Birds Point-New Madrid Floodway Project and how it impacts flood control in Illinois. Releasing flood waters into the Birds Point-New Madrid Floodway helps reduce flood conditions in southern Illinois.

5. Yesterday, April 28, 2011, I testified in this matter concerning the conditions on the Ohio River and the Cairo Floodwall as I knew them to be in the morning before entering the Federal Courthouse. I testified that the water elevation at the Ohio River steam gage at Cairo was 58.67 feet and rising, and that only clear water was seeping from under the Floodwall in Cairo. Conditions changed during the afternoon which I did not learn about until I left the Courthouse.

6. By 3:00 p.m. yesterday, observers reported additional seepage including an unusually large, at least thirty (30) feet across, sand boil developed well behind the Cairo Floodwall in Alexander County near the Bunge Corporation on 34th Street. This indicates a

substantial degradation of the Cairo Floodwall in the past 24 hours. It also indicates that the hydrostatic pressure from the high water elevations in the Ohio River is so great that large amounts of water are getting underneath the Floodwall threatening Cairo.

7. Today, April 29, 2011, the sand boil is still present and percolating muddy water even with efforts to repair it. This means that the hydrostatic pressure continues to be great. The Ohio River elevation has risen to fifty-nine feet (59'). The land surrounding the sand boil is completely saturated and most of it is underwater.

8. The U.S. Army Corps of Engineers is aware of the sand boil behind the Floodwall and is attempting to manage it. However, the size of the sand boil is so large, that those efforts have had limited success over the last twenty-four (24) hours as muddy water continues to pass through the sand boil.

9. Sink holes have formed within the last six (6) hours (9:00 a.m. and 3:00 p.m.) near 11th and 12th Streets near Commerce Avenue in Cairo. An additional sand boil has been reported within the last hour (between 2:00 and 3:00 p.m.) near the north entrance to Cairo along U.S. Route 50. These events further document the deteriorating conditions of the levee and Floodwall.

10. The fact that hydrostatic pressure is producing so much water behind the Cairo Floodwall indicates that the Floodwall is at risk of failure. Therefore, the town of Cairo is at risk, including all of the property and people who live there. Reducing the elevation of the Ohio River will reduce the hydrostatic pressure on the Floodwall and lower the risk of Floodwall failure.

11. Levees or floodwalls experience failure and/or degradation through various means. Some experience overtopping failures. Some experience significant seepage that leads to

collapse of the levee, or floodwall. The Cairo Floodwall is experiencing significant seepage at this time.

12. Implementing the Birds Point-New Madrid Floodway Operations Plan of 1986 and crevassing the Floodway would provide a reduction in the elevated river flood stages which have created these flood problems on the Ohio River in Illinois and the flood conditions behind the Floodwall. It would also provide immediate relief to residents of Cairo and Alexander County, Illinois.

FURTHER AFFIANT SAYETH NOT.

[Signature] /s/ Arlan Juhl *[Signature]*
Arlan Juhl

Subscribed and sworn to before me
this 29th day of April, 2011.

/s/ Karen L. McNaught
Notary Public

