

EXPERT PANEL
for
THE DICKSON COUNTY LANDFILL
DICKSON, TENNESSEE

Memorandum

TO: Timothy V. Potter, Esq., Reynolds Potter, Ragan & Vandivort, PLC
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Michael E. Wall, Esq., Natural Resources Defense Council, Inc.

FROM: David E. Jackson, P.G., P.H.
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MATTER: Natural Resources Defense Council, Inc., *et al.*, v. County of Dickson, Tennessee,
et al., No.: 3:08-cv-00229
Consent Order Entered December 9, 2011

DATE: October 13, 2015

SUBJECT: Expert Panel Communication Number 10a
Update on Bruce Spring Vapor Investigations and Remedial Planning Status

The attachment to this memorandum provides an update on the status of our evaluation of the potential vapor issues at Bruce Spring. It was prepared primarily to address the concerns expressed by [REDACTED] in her e-mail of 10/1/2015 to the Dickson County Landfill (DCL) Expert Panel (EP) and Messrs. Potter and Vandivort. Although the EP appreciates input from anyone, we do not wish to establish a precedent in which we are expected to respond directly to inquiries from Dickson County residents. We believe that it is more appropriate for Mr. Potter, or someone else who may be designated to represent Dickson County, to respond to inquiries from residents. Whoever responds to [REDACTED], or any other Dickson County resident who may express an interest in this matter, should feel free to use the information in the attached document, or even the attached document itself, in support of that response.

As an interim measure, supplemental to the overall approach described in the attachment, and in recognition of the time needed to gather the information needed to make and implement the remedy decision, the EP has also authorized expenditure of funds to support a temporary alternative residence for [REDACTED], as described in our Communication 10 dated April 15, 2015. The EP has also approved short term relocation *via* email on August 19, 2015. Our understanding is that [REDACTED] is aware of both options but has not at this time chosen to exercise either of these options.

ATTACHMENT

Bruce Spring Area Vapor Investigation and Remedial Planning Approach Summary

The Dickson County Landfill (DCL) Expert Panel (EP) is currently evaluating options for addressing ambient air vapors in the vicinity of Bruce Spring. Studies of ambient air and residences in the vicinity of Bruce conducted to date have indicated the following key points:

- Vapor intrusion caused by offgassing from groundwater and subsequent migration upwards to the ground surface or into structures does not seem to be an issue of concern.
- Vapors offgassing from Bruce Spring and the outlet to Bruce Spring, between Bruce Spring and the West Piney River, may be an issue of concern.
- Two residences ([REDACTED] and [REDACTED]) have exhibited indoor concentrations of chemicals that may be associated with releases from the DCL, primarily trichloroethylene (TCE), greater than the US EPA Regional Screening Criteria (RSC). The RSC is a highly conservative criteria value used to determine if further investigation/evaluation is warranted. It is not a value above which risks are known to be in excess of commonly used risk criteria.
- One of these residences ([REDACTED]) exhibited nearby outdoor air TCE concentrations greater than the US EPA Regional Screening criteria, whereas TCE was not detected at the nearby outdoor air of the other residence ([REDACTED]).

Our Communication 10, dated April 15, 2015 provides further summary information about the vapor studies at Bruce Spring.

Based on this information, the EP has requested and approved plans for further studies at the [REDACTED] residence and begun efforts to determine the best manner of dealing with the vapors at the [REDACTED] residence. The EP is evaluating the following long-term remedial options with regard to the [REDACTED] residence:

- Providing treatment for the water entering Bruce Spring.
- Redirecting the outflow from Bruce Spring on the shortest feasible route to the West Piney River.
- Authorizing Dickson County to purchase the [REDACTED] property and the parcel on which Bruce Spring is located and restricting future residential use of those parcels. The EP has authorized the County to conduct the evaluations they need to perform as part of their property acquisition process and report back to the EP on the likely cost of implementing this option.

Each of the three long-term remedial options has advantages and disadvantages. Providing treatment for the water entering Bruce Spring would require the installation of substantial treatment equipment that may not be attractive in that setting and would require long-term operation and maintenance. On the positive side, such treatment could largely control the offgassing. Rerouting the Bruce Spring outlet has the potential to be the least costly alternative, but would require the greatest level of scientific evaluation to provide confidence that this remedy would be effective. Purchasing the [REDACTED] property would provide a simple easily managed long-term solution, but would take that property out of use for residential purposes.