



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**

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January 26, 2024

Vance Jackson, PG, CPM
Section Chief
Underground Storage Tanks Section
North Carolina Department of Environmental Quality

RE: Updated Letter of Health Consultation regarding potential human exposures and public health risk from the Colonial Pipeline Spill in Huntersville, NC

Dear Mr. Jackson,

In August 2020, a gasoline leak was identified in an underground pipeline operated by Colonial Pipeline Company (CP). The leak occurred where the pipeline crosses the Oehler Nature Preserve near Huntersville in Mecklenburg County, North Carolina (“the site”). CP repaired the pipeline to stop the leak but over 2 million gallons of gasoline had been released into the environment. In November 2020, the NC Department of Environmental Quality (NCDEQ) reached out to the North Carolina Department of Health and Human Services (NCDHHS) Health Assessment, Consultation, and Education (HACE) program to help answer residents’ questions about health impacts and risk from exposure. A Letter of Health Consultation was issued to your office on the 8th of January 2021, with specific recommendations regarding monitoring the drinking water from wells near the contamination site and potential vapor intrusion at occupied structures near the contaminant plume.

HACE staff have continued to review available environmental data, including monitoring monthly and quarterly reports issued by CP from January 2021 through March 2023, to determine any potential health risks to residents near the site. We are now issuing this updated Letter of Health Consultation with the following conclusions:

- **Sampling indicates that drinking water in the area is currently unaffected.** Weekly sampling since the incident has not shown petroleum-related contaminants in drinking water wells within 1,500 feet of the site [APEX 2020]. Some wells had elevated levels of lead, although most wells with lead are not currently in use. Those well owners have been provided recommendations to not use their water for drinking, and to re-test the water in the future if use of the wells change. The source of the lead is unknown.
- **Surface water in the area is currently unaffected.** The data submitted in reports through November 2022 show strong evidence that the surface water sampling along nearby creeks has not detected any petroleum-related contaminants.
- **Vapor intrusion data are limited.** One occupied residential structure within a 1500’ radius of the site has an active vapor intrusion mitigation system. Other structures within the 1500’

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radius of the site are outside of the gasoline plume or have been purchased by CP and are either vacant, or occupied by colonial pipeline staff who work onsite.

To continue to ensure that public health is protected, HACE staff recommend that:

1. **The vapor intrusion mitigation system in the occupied residential structure should be tested and maintained quarterly.** Indoor air sampling should be conducted under worst-case sampling conditions – i.e., winter and summer months when windows are typically closed and HVAC systems are active – until levels of groundwater contamination within 100 feet of the residence are no longer above NCDEQ risk-based standards. This will ensure the system is functioning properly and the effectiveness of the vapor intrusion system is confirmed. Confirmation of the effectiveness of the vapor intrusion system should be conducted via vapor intrusion system monitoring and indoor air sampling that is analyzed using approved USEPA/NCDEQ air sampling methodology.
2. **A vapor intrusion investigation should be conducted in any residences used by CP employees and/or contractors.** It was conveyed to HACE that some CP employees and/or contractors may be living in several of the residential homes purchased by CP adjacent to the site and that a vapor intrusion investigation has not been conducted at these homes. Should this practice continue, CP needs to immediately conduct indoor air sampling to determine if the potential for vapor intrusion from site contamination is present. Quarterly indoor air sampling should be conducted for at least 2 years until enough data has been collected to rule out a vapor intrusion pathway. If confirmation via indoor air sampling indicates an active vapor intrusion pathway the occupants should be immediately advised, and health risks should be immediately communicated, per item #1 above.
3. **If an active vapor intrusion pathway exists the occupants should be immediately advised, and health risks should be immediately communicated.** Occupants should then be given the option to vacate the space or be provided with temporary air purification units until the vapor intrusion system is confirmed to be successfully mitigating vapors from entering the occupied space.
4. **Monitoring wells in the vicinity of the incident should continue to be sampled on a regular basis to provide any indication of contaminant migration.** This data will continue to provide spatial and temporal variation that may indicate any movement of the remaining gasoline in the soil and groundwater.
5. **Air sparge and soil vapor extraction systems should be used to mitigate dissolved phase hydrocarbons south of the site and recovery well network.** To date, the soil vapor extraction system has been performing this function; all efforts should be made to engage the air sparge system as quickly as possible.
6. **Drinking water wells in the vicinity of the incident should continue to be monitored on a regular basis.** This will ensure that impacts from the site will not result in drinking water exposure to site-related contaminants. If site-related contaminants are observed in drinking water wells, residents should be immediately advised, and health risks should be immediately communicated. Alternative water sources should also be immediately made available to the affected residents.
7. **Conduct testing for vapor intrusion before any properties adjacent to the site are sold for residential or commercial occupancy.** Several properties around the site have been purchased by CP. If it is decided that these homes or properties will be sold for residential or commercial occupancy, we recommend that testing for potential vapor intrusion be

conducted prior to occupancy. If vapor intrusion of a structure is an issue, the potential buyers should be made aware of the associated risks and a mitigation system should be installed and verified to be working and safe to occupy prior to purchase.

8. Continued review of environmental data by HACE staff, with additional LHCs when warranted.

If you have any questions or concerns about this evaluation, please reach out by calling Dr. Wayne Spoo at 919-817-4722, emailing wayne.spoo@dhhs.nc.gov and/or nchace@dhhs.nc.gov. HACE staff are available to discuss these results and any associated health concerns that residents may have about this site if needed.

Thank you,



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