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North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

September 19, 2014

Roger L. Stancil, Town Manager
Town of Chapel Hill
405 Martin Luther King Jr. Blvd
Chapel Hill NC 27514

Re: Chapel Hill Police Department Property
828 Martin Luther King Jr Blvd, Chapel Hill, Orange County, NC
Site ID# NONCD0001486

- Phase I & Limited Phase II Environmental Site Assessment (7/18/13)
- Environmental Site Characterization (3/25/14)
- Updated Groundwater Sampling Report and Site Conditions Questionnaire (9/2/14)

Dear Mr. Stancil:

I have completed a review of the above referenced documents and have the following observations and comments:

1. In the Environmental Site Characterization document (3/25/14) Tables 4, 5 and 6 provide Maximum Soil Contaminant Concentrations for soil to groundwater, Residential and Commercial. The concentrations cited are not applicable. Refer to the Inactive Hazardous Waste Branch; Soil Remediation Goals Table located here <http://portal.ncdenr.org/web/wm/sf/ihs/ihsguide>.
2. The Updated Groundwater Sampling Report (9/2/14) was incomplete. The lab sheets for each sample event were missing the last page. Also, no chain of custody was included.
3. During sample collection for metals it is important to ensure that the turbidity of the water is low in order to get an accurate analysis of transmittable metals in the aquifer. During the August 20 sample collection event, no turbidity reading was provided for MW-4, nor was a pre-filter sample collected from either monitoring well. Therefore, the sample results from this event cannot be compared to cleanup standards.
4. We did not find that field parameters, such as temp, pH, turbidity and Specific Conductivity were taken at the time of sample collection to show adequate well purging prior to sampling.
5. The well drilling records (GW-1 forms) for MW-3 and MW-4, provided in the Environmental Site Characterization document (3/25/14), are inaccurate and incomplete. For example, the records for MW-3 do not have any information on the depth and length of the casing and for MWW-4, the record states that the casing is 9'2" deep, which is the total depth of the well. Also, there is no mention of a

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bentonite seal, which is required in the annular space directly in contact and above the packing material. Due to these incorrect records, we cannot tell if the wells were constructed in compliance with NCAC Title 15A, Subchapter 2C, Section .0100. The well construction details mentioned here have direct bearing on the ability to properly purge and obtain a non-turbid sample.

6. In response to Question #5 in the Site Conditions Questionnaire, you state that site groundwater has been confirmed to not be impacted. However, results from MW-1 show exceedances of the 15A NCAC 2L standards. Also, as indicated above, the latest sample results from MW-4 and MW-3 are not valid for comparison to standards.

Based on the comments above, we will need the following information to evaluate whether the site requires any remediation:

1. Please submit all sample analysis, all lab sheets, field notes and copies of the chain of custody documents related to the sampling efforts on August 15 and 20, 2014.
2. Due to the incorrect well drilling records for MW-3 and MW-4, which are necessary to show proper construction, along with the ongoing turbidity issues and low recharge of these wells, it is recommended that you construct new monitoring wells that comply with NCAC Title 15A, Subchapter 2C, Section .0100 well construction standards. Please ensure that you use a certified well driller that properly constructs and accurately documents the details of the new monitoring wells. Due to potential turbidity problems at the site, you may want to use a finer packing material, such as a #1 or #00 sand pack and a smaller slot size for the screen. Also, MW-3 and MW-4 should be properly abandoned in accordance with these standards so that they do not act as a source of contamination.
3. Once the new monitoring wells have been installed and properly developed, collect groundwater samples from all of the monitoring wells (including MW-1) in order to determine the levels of total metals in the groundwater. Prior to collection of the samples, turbidity readings should be collected. If turbidity is elevated a sample should not be collected. Additional well development and other procedures may be necessary. Please be sure to follow the US EPA Region IV Science and Ecosystem Support Division Field Branches Quality System and Technical Procedures as referenced in Section 2 of the *Inactive Hazardous Sites Program Guidelines for Assessment and Cleanup* located on our website.
4. We recommend that you prepare a work plan for our review prior to conducting this work.

Until it has been determined that the site is not posing risk to human health or the environment, you must control site access and take measures to prevent soil run off. If you have any questions, please do not hesitate to contact me at (919) 707-8371 or via email at amy.axon@ncdenr.gov.

Sincerely,



Amy Axon, Hydrogeologist
Division of Waste Management, NCDENR

cc: Curtis Brooks, Town of Chapel Hill
Josh Dunbar, Falcon Engineering