



PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

MICHAEL SCOTT
Director

May 5, 2016

Mr. Elias Ruhl
Froehling & Robertson, Inc.
310 Hubert Street
Raleigh, North Carolina 27603

Re: Request for Work Plan and Cost Proposal
Task Order 7607DP-26&27
E.H. Glass County LF
Greensboro, Guilford County, NC
ID # NCD980557607

Dear Mr. Ruhl:

Submit a task work plan and cost estimate to perform remedial investigation-contaminant delineation phase activities at the above referenced site. Conduct these activities in accordance with State Contract No. N15001i.

Investigation Goals: The goal of this phase of work is to investigate landfill gas in the waste disposal area at the site.

Scope of Work for Task Order 7607DP-26:

- Prepare a work plan in accordance with Froehling & Robertson's approved standard operating procedures, and include a schedule of daily activities.
- Submit an itemized cost estimate that identifies personnel and materials involved.
- Reference the most recent Guidelines for Addressing Pre-Regulatory Landfills and Dumps for details regarding procedures.
- Ensure personnel in the field are qualified to identify contaminated material and landfill waste and comply with OSHA-required health and safety training. Before task activities begin, photograph areas or objects that may be disturbed. If needed, photograph affected areas and objects, restoration efforts, and noteworthy items encountered during task activities. Submit these photographs upon completion of the activities, and a review will determine if any need to be included in the report.
- Collect GPS coordinates of all landfill gas probes installed. Report coordinates in decimal degrees to the seventh order using the North American Datum of 1983 (NAD83) format and latitude and longitude using WGS 84 format. These coordinates will be tabulated and included as an appendix.

- Include background (light grey) topographic contour lines on figures detailing the Site and Site vicinity.
- For any invasive activities, provide a plan to properly manage investigation derived waste (IDW). If sampling results indicate non-hazardous IDW, spread within the waste disposal area. If sampling results indicate hazardous IDW, analyze containerized waste as required by waste hauler and include details of sampling and disposal of drums in the proposal. Remove all drummed waste and associated fencing from site within 90 days after field activities are concluded.
- For any field work, minimize the clearing of vegetative material to enable access to proposed sampling points. Using hand tools for clearing is the preferred method, otherwise an explanation must be provided for use of heavy equipment.
- Submit samples to a North Carolina-certified laboratory and analyze for the following parameters by the most current U.S. EPA Contract Laboratory Program Target Compound List: volatile organic compounds by SW-846 method 8260, 1,4-dioxane by Method 8260SIM, semi-volatile organic compounds by SW-846 method 8270, 14 metals by SW-846 method 6020, mercury by method 7471, ammonia by SM 4500, and nitrate and sulfate by EPA Method 300. Please note that any alternate method should be the U.S. EPA Method having the lowest detection limit and that at least achieves the detections equivalent to the 15A NCAC 2L standards or where these are not available, then federal maximum contaminant limits (MCLs). Soil analysis methods must meet the IHSB Preliminary Soil Remediation Goals Table.

Landfill Gas Probe Installation and Screening

- Install 15 temporary landfill gas probes (GP-19 through GP-33) located as presented in the attached maps to monitor subsurface landfill gas. For cost estimating purposes, assume the depth of the gas probes to be 10 feet below ground surface.
- If landfill gas probes cannot be constructed according to minimum requirements in the Guidelines, contact the Unit Project Manager and be prepared to conduct Flux Chamber installation and screening.
- Collect a representative grab soil sample from within the waste for laboratory analysis if contamination is suspected based upon field observations and measurements. Contact Unit Project Manager to discuss observations prior to submitting soil samples to laboratory for analysis. For cost estimating purposes, assume 5 soil samples will be collected for laboratory analysis.
- Screen the 15 newly installed landfill gas probes (GP-19 through GP-33) and the 18 previously installed landfill gas probes (GP-1 through GP-18) for volatile organic compounds (VOCs), methane, oxygen, carbon dioxide, barometric pressure and hydrogen sulfide.
- Screen new landfill gas probes at least 24 hours after installation.
- Compare landfill gas probe screening results with the IHSB Residential Vapor Intrusion Screening levels.

- Do not abandon the gas probes following screening. A review of the field testing results will determine subsequent sample collection.

Scope of Work for Task Order 7607DP-27: Report Compilation

Compilation of the report will be approved as a separate task order. The Report will be titled “Remedial Investigation – Landfill Gas Screening”.

The report is to contain the following items:

- Text, tables, and figures to adequately summarize task activities
- A section concerning any variations from the work plan or your SOPs.

Provide the work plan and cost estimate by May 19, 2016. A task authorization to begin work will be issued based on the approved proposal. Do not proceed with tasks prior to receiving this authorization. If you have any questions or concerns, contact me at (919)707-8230.

Sincerely,



David Kwiatkowski, Hydrogeologist
Division of Waste Management – NCDEQ