



MARYLAND DEPARTMENT OF THE ENVIRONMENT
Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719
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Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Secretary

Anthony G. Brown
Lieutenant Governor

June 29, 2011

Mr. Robert Rinehart
Two Farms, Inc.
t/a Royal Farms
3611 Roland Avenue
Baltimore MD 21211

RE: REQUEST FOR INTERIM CORRECTIVE ACTION

Case No. 2011-0729-CE

(Closed Case No. 99-2595-CE)

Royal Farm Store #96

500 Mechanics Valley Road, North East

Cecil County, Maryland

Facility I.D. No. 13326

Dear Mr. Rinehart:

On June 8, 2011, the Maryland Department of the Environment's Oil Control Program (MDE-OCP) received an *Initial Report of Incident* documenting the detection of liquid phase hydrocarbons (LPH) in a monitoring well (MW-3) adjacent to the active underground storage tank (UST) system. Samples were collected from the remaining monitoring wells (MW-1 and MW-2) and the on-site drinking water supply well on the same date. All samples were non-detect for petroleum constituents. Based on the detection of LPH in MW-3, testing of the UST system, and daily dual phase vacuum extraction, LPH recovery events were required. Royal Farms and the Department continue to review the station's operation and maintenance records to determine the exact source of the release.

On June 16, 2011, an emergency subsurface investigation was directed to delineate the horizontal and vertical extent of petroleum impacts to the subsurface. In addition, four adjacent off-site private drinking water supply wells were sampled. As of June 21, 2011, a total of 24 direct push borings were advanced on-site. All borings were field screened for the presence of volatile organic compounds (VOCs). Preliminary screening data confirms the greatest extent of petroleum contamination is concentrated to the northeast quadrant of the property, in the vicinity of monitoring well MW-3. Soil and groundwater samples were collected from each boring. The Department awaits the final laboratory results for these samples. The samples collected from the off-site drinking water supply wells revealed actionable levels of methyl-tertiary butyl ether (MTBE) in two of the four wells sampled (82.2 and 89.8 parts per billion [ppb]).

The aforementioned findings constitute a violation of Maryland law, specifically, Code of Maryland Regulations (COMAR) 26.10.02.01C. This regulation provides that oil may not be discharged into, near, or in an area likely to pollute waters of the State and that the responsibility for the prompt control, containment, and removal of any released regulated substance shall be with the person(s) responsible for the discharge, the owner of the property, the owner of the regulated substance, the owner/operator of the storage system, and the person in charge of the facility. The Department is evaluating potential enforcement actions.

Based on the continued presence of LPH and the location of this active service station in a high-risk groundwater use area, the Department hereby requires the following:

INSTALLATION AND MONITORING OF GAC FILTRATION SYSTEMS:

- 1) **Immediately** install and maintain a granular activated carbon (GAC) filtration system on the drinking water supply wells located at 505 and 513 Mechanics Valley Road. The Department is in receipt of the June 27, 2011 email from your contractor discussing the property owner's wish to schedule the installation for July 5, 2011. The Department must be notified of any additional delays as soon as Royal Farms is aware of them.
- 2) **No later than July 13, 2011**, and on a **monthly** basis for three months, collect samples from the newly installed GAC systems at 505 and 513 Mechanics Valley Road. Samples must be collected pre-, mid-, and post-filtration. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2. Submit copies of all sampling results to the property owner, the Cecil County Health Department, and the MDE-OCP case manager.

OFF-SITE SAMPLING:

- 3) **Immediately** sample the following addresses to ensure that petroleum contamination has not migrated off-site and impacted these sensitive receptors: 463 Mechanics Valley Road, 475 Mechanics Valley Road, and 10 Montgomery Drive. These drinking water supply well samples must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2. If a GAC filtration system is present, samples must be collected pre-filtration. The Department approved the *Water Well Sampling Access* letter, via email, on June 23, 2011. After the sampling results have been obtained, provide a copy to each homeowner sampled, the Cecil County Health Department, and the MDE-OCP case manager.
- 4) **No later than July 13, 2011**, and on a **monthly** basis for three months, continue to collect samples from the private drinking water supply wells located at 487 and 493 Mechanics Valley Road. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 524.2. Submit copies of all sampling results to the property owner, the Cecil County Health Department, and the MDE-OCP case manager.

REQUEST FOR INTERIM CORRECTIVE ACTIONS AND WORK PLAN:

- 5) Continue active removal of LPH from all monitoring wells and temporary borings containing measurable LPH, in the form of daily dual phase vacuum extraction events until no measurable LPH is detected within the monitoring well network, or until otherwise directed by the Department. Gauge the monitoring locations before, during, and after each daily recovery event. Provide daily gauging data and recovery totals to the MDE-OCP by the next business day.
- 6) **No later than July 5, 2011**, submit an *Interim Monitoring and Recovery Well Installation Work Plan*. Based on the preliminary results of the *June 16 - June 21, 2011 Emergency Subsurface Investigation*, propose locations for the installation of at least five 4-inch monitoring wells (due to protracted recovery efforts, MW-3 must be replaced) and three 4-inch recovery wells.

SUBSURFACE EVALUATION AND CORRECTIVE ACTION:

- 7) **No later than July 25, 2011**, submit the results of the *June 16 - June 21, 2011 Emergency Subsurface Investigation*. When submitting reports to the Oil Control Program, include data summary tables and to-scale site maps showing actual sampling locations (i.e., monitoring wells, tank field wells, and borings). In the discussion of supplemental sampling events, include details on sampling procedures and describe analytical results in terms of media sampled. Reports must also include groundwater contour maps, site-specific detailed hydrogeology, gauged product thickness and dissolve concentration maps, and qualitative and/or quantitative discussions.
- 8) **No later than July 25, 2011**, submit a *Corrective Action Plan* to evaluate, capture, contain, and reduce the migration of the petroleum product plume as well as the dissolved phase hydrocarbon groundwater contamination. The proposed *CAP* must aggressively remediate contaminated soil and groundwater on the subject property and mitigate any potential current and future risks to on-site and/or off-site receptors.

FUTURE SAMPLING AND GROUNDWATER MONITORING:

- 9) **Beginning in July 2011**, collect samples from all monitoring wells and tank field monitoring pipes not actively exhibiting LPH on a **monthly basis**. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, using EPA Method 8260 and for total petroleum hydrocarbons/diesel-range and gasoline-range organics (TPH/DRO and TPH/GRO) using EPA Method 8015B. The Department will re-evaluate this frequency upon initiation of formal corrective action.
- 10) In March 2007, Royal Farm's furnished the Department with a *Receptor Survey - Addendum*. **No later than August 25, 2011**, based on local, federal, and State well surveys, provide the Department with an update to all previously identify drinking water wells (i.e. domestic, non-community/community water supply, agricultural), within a half-mile radius of the property and plot on a U.S. Geological Survey topographic map or scaled street map. Annotate on this map the 500-ft., 1,000-ft., and 0.5-mile radii. Provide a written summary on the depths of these wells, their screen depths, and their current status. Review well completion reports for these wells and evaluate whether on-site conditions could potentially impact any off-site drinking water wells in the area. Written documentation must be provided of your findings and the list of persons contacted.

COMPLIANCE ISSUES:

The Department continues to evaluate the current status of the station's operational compliance with COMAR 26.10. Enforcement action will be pending for violations noted.

Please note that all information, data, reports or plans generated for this site must be submitted to the Oil Control Program for review by dates specified and/or agreed upon with the Department. Failure to perform the advised actions may result in enforcement proceedings that could include the issuance of civil penalties and other legal sanctions.

Notify the Oil Control Program at least five (5) working days prior to the start of any fieldwork associated with this project. When submitting documentation to the Oil Control Program, provide four (4) hard copies and a copy on a labeled compact disc (CD) for updating the Oil Control Program's *Remediation Sites* list on the MDE website. For all questions concerning this case, please contact the case manager, Mr. Chadwick Widney, at 410-537-3386 (email at cwidney@mde.state.md.us) or the Regional Supervisor, Ms. Susan Bull, at 410-537-3499 (email: sbull@mde.state.md.us).

Sincerely,



Christopher H. Ralston, Administrator
Oil Control Program

SRB/nln

cc: Mr. David Carter (505 and 513 Mechanics Valley Road).
Raymar LLC (463 Mechanics Valley Road)
Mr. and Mrs. Curtis and Betty Johnson (475 Mechanics Valley Road)
Mr. and Mrs. Robert and Debra Dean (487 Mechanics Valley Road)
Mr. and Mrs. Charles and Debra Pelletier (493 Mechanics Valley Road)
Montgomery Bros., Inc (10 Montgomery Drive)
Mr. Jeff Stein (Advantage Environmental Consultants, LLC)
Mr. Charles Smyser (Cecil County Health Dept.)
Ms. Susan R. Bull
Mr. Thomas L. Walter
Priscilla N. Carroll, Esquire
Mr. Horacio Tablada