



APR 26 2017



JERRY AYCOCK  
PLANTATION PIPE LINE  
1000 WINDWARD CONCOURSE  
SUITE 450  
ALPHARETTA GA 30005

Re: Corrective Action Plan, Response to Comments, and Monthly Report Review & request for a revised Corrective Action Plan Addendum.  
Plantation Pipe Line Lewis Drive Release, 112 Lewis Dr., Belton SC  
Site #18693  
Petroleum Pipeline Release Reported December 8, 2014  
Corrective Action Plan Addendum (3/1/17), received March 2, 2017  
Response to Comments (3/1/17), received March 2, 2017  
February 23, 2017 Monthly Status Update (3/21/17), received March 23, 2017  
January 2017 Monthly Status Update (2/28/17), received March 2, 2017  
Monthly Update (1/30/17), received January 31, 2017  
Meeting with Plantation Pipeline and ch2m, April 7, 2017  
Anderson County

Dear Mr. Aycock,

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced documents. Based upon our review, the Corrective Action Plan Addendum (CAPA) is approved with the following comments that are to be addressed as part of an approvable revised CAPA. **A revised CAPA must to be provided within 30 days of the date stamped on this correspondence.**

#### Free Product Recovery

- 1) Currently, the DHEC understands that free product removal is being conducted twice weekly. However, as agreed upon in the meeting held April 7, 2017, recharge rates for recovery wells RW-2, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, and RW-14 will be determined. This information will aid in the determination of effective frequency of recovery. As site conditions change, recharge rates will need to be evaluated to determine the most effective frequency of recovery.

#### Interim Goals

- 2) Regarding the previous request for interim goals in the January 31, 2017 Corrective Action Plan Review (Coleman to Aycock), the March 2, 2017 Response to Comments Document (Waldron to Coleman) provides a remedial goal of no surface water quality exceedances in the surface water protection zones within six months following startup of the sparging system. This proposal will need to be incorporated within the revised CAPA. Interim goals will need to be discussed for the remaining areas in the Annual Report.

### **Monitoring Frequency**

- 3) Quarterly monitoring for BTEX, Naphthalene, MTBE, 1,2-DCA, and dissolved oxygen should continue until stabilization has been determined. Upon review of data over time, alterations to the monitoring frequency can be evaluated. Evaluation of the monitoring frequency must be discussed in the Annual Report. Any changes to the monitoring frequency will need to be evaluated and approved by the DHEC. Any reference to semi-annual and/or annual monitoring in text or tables within the CAPA must be omitted.

### **Brown's Creek Protection Zone Monitoring**

- 4) Given the proximity of Brown's Creek, groundwater monitoring wells MW-39, MW-40, and MW-41 should be added to the monthly monitoring well network in the area of Brown's Creek.

### **Cupboard Creek Protection Zone Monitoring**

- 5) Given the migration of contamination in the direction of Cupboard Creek, groundwater monitoring wells MW-20 and MW-23 should be added to the monthly monitoring well network in the area of Cupboard Creek.

### **Shallow Bedrock Zone Monitoring**

- 6) In discussing the Shallow Bedrock Zone strategy with Plantation Pipe Line and ch2m, DHEC understands that a Pilot Study Evaluation Procedure will be provided. Based upon review of the data provided from the pilot study, a shallow bedrock effectiveness monitoring plan will be provided at a later date.

### **Hayfield Zone Monitoring**

- 7) Based upon the meeting held April 7, 2017, DHEC understands that Plantation Pipe Line does not anticipate rapid changes to dissolved phase contamination. Groundwater monitoring wells MW- 2, MW-3, and MW-7 should be added to the monthly sampling network in the CAPA to monitor the Hayfield Zone

### **Surface Water Monitoring**

- 8) Surface water sampling should continue monthly during the first year of treatment after weekly sampling has been completed. As discussed in item #3, evaluation of the monitoring frequency must be discussed in the Annual Report. Any changes to the monitoring frequency will need to be evaluated and agreed upon. Surface water should continue to be sampled for BTEX, Naphthalene, and MTBE.

### **Biodegradation Monitoring**

- 9) Section 3.4 should be revised to state that biodegradation monitoring will be conducted quarterly, rather than annually to evaluate the progress of biodegradation. Monitoring frequency must be discussed in the Annual Report. Any changes to the monitoring frequency will need to be evaluated and agreed upon.

### **Flow Rate Evaluation (Mounding and Volatilization)**

- 10) In that groundwater mounding from displacement of water by air injection causing plume migration is a concern, adequate monitoring is necessary. The DHEC requests that a data logger be installed in recovery well RW-14, located down-gradient of the biosparging system lines towards Brown's Creek, in addition to data loggers proposed in groundwater monitoring wells MW-12 and MW-15.
- 11) The CAPA will need to specify the method used to measure the degree of volatilization used to determine flow rates. In addition to the method, the standard of comparison and the sampling locations will need to be provided.

### **Visual Observations**

- 12) The revised CAPA should state that all observations of petroleum sheen, seeps, dead or distressed vegetation or biota, unusual odors will be noted in monthly reports and reported to the DHEC via phone regardless if previous occurrences have been noted.

**Free Product**

- 13) Data provided in the February 2017 Monthly Status Update Report documented approximately 2 to 3.5 feet of free product present in groundwater monitoring wells MW-2, MW-12, MW-16, MW-18, and MW-20. Installation of additional recovery wells may be necessary in areas where recovery wells, sumps, or trenches are not present, or are not in close enough proximity to demonstrate connection to the free product, such as the areas where MW-2 and MW-18 are located.

**Further Assessment**

- 14) Based upon discussions during the April 7, 2017 meeting, DHEC understands that additional wells will be proposed to determine the extent of contamination.

**Routine Sampling on Cupboard Creek**

- 15) In that surface water samples have not been collected from SW-05 and SW-06 since February and March of 2016, additional locations that are more likely to contain water should be proposed in Cupboard Creek.

**Dissolved Plume Monitoring**

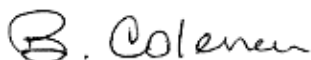
- 16) Groundwater monitoring wells MW-33 and MW-33T should be added to the routine monitoring network.
- 17) A single map that highlights all wells that are proposed for quarterly sampling differentiated by the geology bracketed by screened intervals (shallow aquifer, transition zone, and the bedrock aquifer) in different colors would be helpful to visualize each interval that will be monitored. A scaled map should be provided one week prior to the next meeting so that the site wide sampling strategy can be discussed.

**Monthly Monitoring Reports**

- 18) In the future, please provide updated free product isopach maps and iso-concentration maps when new data is collected.
- 19) In the future, field data sheets should always be provided with data.

Documents should continue to be provided in paper format and pdf via a disk with Site ID # 18693 and Plantation Pipeline Lewis Drive Release noted in a prominent location. Should you have any questions, I can be reached at (803) 898-0628 or [colemabj@dhec.sc.gov](mailto:colemabj@dhec.sc.gov). Faxes can be sent to (803) 898-0673.

Sincerely,



Bobbi Coleman, Hydrogeologist  
Assessment Section  
Underground Storage Tank Management Division  
Bureau of Land and Waste Management

Attach: UIC Permit to Operate (Shallow Bedrock Injection Wells 3 of 13)

CC: Chris McCluskey, Upstate Region EQC (Anderson Office) w/attach.  
William Waldron, CH2M Hill, 3120 Highwoods Blvd., Suite 214, Raleigh NC, 27604 w/attach.  
Gary Poliakoff, Poliakoff & Associates, PO Box 1571, Spartanburg SC, 29304 w/attach.  
Scott Lewis, 15 Edgewood Dr., Williamston SC 29697 w/attach.  
Eric Lewis, 421 Reedy Fork Rd., Greenville SC 29605 w/attach.  
Technical File w/attach.



March 23, 2017

Mr. Jerry Aycock  
Plantation Pipe Line Company  
1000 Windward Concourse, Suite 450  
Alpharetta, GA 30005

Re: Underground Injection Control Permit #SCHE03020469M  
Plantation Pipe Line Co. , Lewis Drive Release (Site ID#18693) Site

Dear Mr. Aycock:

Enclosed is a Permit to Operate three (3) Class VA-I (Aquifer Remediation) injection wells of the 13 wells approved for construction at the Plantation Pipe Line Co. , Lewis Drive Release (Site ID#18693) Site, Anderson Anderson County, SC.

**South Carolina Board of Health and Environmental Control  
Guide to Board Review  
Pursuant to S.C. Code Ann. § 44-1-60  
Effective April 1, 2013**

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of \$100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

**I. Filing of Request for Final Review**

1. A written Request for Final Review (RFR) and the required filing fee of one hundred dollars (\$100) must be received by Clerk of the Board within fifteen (15) calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15<sup>th</sup> day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after 5:00 p.m.
2. RFRs shall be in writing and should include, at a minimum, the following information:
  - The grounds for amending, modifying, or rescinding the staff decision;
  - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
  - the relief requested; and
  - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control  
Attention: Clerk of the Board  
2600 Bull Street  
Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.
5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.
6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.
7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

*NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.*

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

## II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.
2. The Clerk will request Department staff provide the Administrative Record.
3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:
  - include the place, date and time of the Conference;
  - state the presentation times allowed in the Conference;
  - state evidence may be presented at the Conference;
  - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
  - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.
4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

### III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:
  - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
    - Type of decision (permit, enforcement, etc.) and description of the program.
    - Parties
    - Description of facility/site
    - Applicable statutes and regulations
    - Decision and materials relied upon in the administrative record to support the staff decision.
  - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
  - Rebuttal by Department staff[15 minutes]
  - Rebuttal by Requestor(s)[10 minutes]

Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.
2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

**The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.**

If you have any questions, please call Bruce Crawford at (803) 898-4177.

Sincerely,

  
Harriet H. Gilkerson, Manager  
Water Quantity Permitting Section  
SCDHEC - Bureau of Water

cc: William Waldron, CH2M Hill Engineers Inc., 3120 Highwoods Blvd., Suite 214, Raleigh NC 27604  
Bobbi Coleman - BLWM



WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Operating Approval

for

Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020469M

Date of Issue: March 23, 2017

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with the provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, and pursuant to receiving a Permit to Operate three (3) Class VA-I (Aquifer Remediation) injection wells, authorization is granted to Plantation Pipe Line Company to operate three (3) Class VA-I (Aquifer Remediation) injection wells located at the Plantation Pipe Line Co., Lewis Drive Release (Site ID#18693) Site, Anderson Anderson County, SC, and are subject to the attached provisos noted for the operator.

The Class VA-I injection wells are one (1) inches in diameter and approximately twenty-nine (29) to thirty-seven (37) feet deep.

Pursuant to Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, this authorization may be rescinded if these injection wells should, at any time, contaminate, pollute, or otherwise adversely affect other water in the vicinity or for any other conditions contained in R61-87, Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended.

Expires: November 16, 2019

  
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Harriet H. Gilkerson, Manager  
Water Quantity Permitting Section  
SCDHEC - Bureau of Water

Date March 23, 2017

Provisions to the Injection Well Operating Approval  
for  
Underground Injection Well Permit #SCHE03020469M  
Plantation Pipe Line Co. , Lewis Drive Release (Site ID#18693)  
Anderson  
Anderson County, S.C.  
March 23, 2017

- 1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.
- 2) Only ambient air as described in the corrective action plan may be injected into the subsurface at the three (3) Class VA-I (Aquifer Remediation) injection wells. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.