

July 9, 2018

Mr. Michael Terpinski  
Ohio EPA, NWDO, DERR  
347 North Dunbridge Road  
Bowling Green, OH 43402

**Re:    Envirosafe Services of Ohio, Inc.  
      EPA Identification Number: OHD 045 243 706  
      June 2018 Progress Report**

Dear Mr. Terpinski:

In accordance with Condition E.13 of its Ohio Hazardous Waste Facility Installation and Operation Permit (the "Permit"), Envirosafe Services of Ohio, Inc. ("ESOI") hereby submits this progress report to the Ohio Environmental Protection Agency ("Ohio EPA") for the period beginning June 1, 2018 and ending June 30, 2018.

**Corrective Measures Implementation ("CMI"):**

**Project Activities:**

During this reporting period, CMI activities included the following:

1. Journalization of the Director Initiated Modification to incorporate corrective measures into the Ohio Hazardous Waste Facility Installation and Operation Permit occurred on June 20, 2018;
2. Quarterly inspections, leachate elevation readings, and flow testing of the leachate extraction system;
3. All interior piezometers were measured on the following dates: SWMUs 5, 6, and 7 June 20, 2018. All exterior wells measured on June 21, 2018. The following is documentation that:
  - SWMUs 5, 6, and 7 are maintaining an inward gradient. Each deep interior piezometer is at an elevation at least 3.0 feet below the lowest ground water elevation in the relevant shallow perimeter monitoring well(s) as defined in the draft Table 1.0 of the Operation, Maintenance, and Performance Monitoring Plan (OMPM Plan) with the exception of NRP-25.
  - NRP-25 has been impacted from off-site flow into the unit from an adjacent off-site source as well as a significant volume of LNAPL. It is anticipated that this impact will lessen once the revised performance objectives have time to take effect and an effective LNAPL pumping system is discovered. The reading is presented below. The well will continue to be monitored on a quarterly basis in accordance with the revised OMPM Plan that will be submitted in accordance with the revised permit. This is potentially one of the highest producing well on site and while the levels have improved, off-site infiltration and LNAPL are having a significant impact. ESOI is following the Level 2 response at this time.

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|                         |        |        |        |        |        |        | Highest / Lowest | Difference (out-in) |
|-------------------------|--------|--------|--------|--------|--------|--------|------------------|---------------------|
| <b>SWMU 5 - Central</b> |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | PZ-5   | NRP-24 |        |        |        |        |                  |                     |
|                         | 569.83 | 555.66 |        |        |        | 569.83 |                  |                     |
| Exterior Wells          | F-1S   | MR-4S  | MR-7S  |        |        |        | 7                |                     |
|                         | 584.81 | 583.27 | 577.28 |        |        | 577.28 |                  |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | RW-3   | PZ-6   |        |        |        |        |                  |                     |
|                         | 556.66 | 560.74 |        |        |        | 560.74 |                  |                     |
| Exterior Wells          | F-1S   | MR-7S  |        |        |        |        | 17               |                     |
|                         | 584.81 | 577.28 |        |        |        | 577.28 |                  |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | PZ-7   | RW-11  | PZ-22  | PZ-23  |        |        |                  |                     |
|                         | 560.00 | 554.06 | 550.34 | 544.29 |        | 560.00 |                  |                     |
| Exterior Wells          | F-1S   | MR-1SA | MR-5S  |        |        |        | 20               |                     |
|                         | 584.81 | 580.08 | 580.57 |        |        | 580.08 |                  |                     |
| <b>SWMU 5 - West</b>    |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | PZ-13  |        |        |        |        |        |                  |                     |
|                         | 565.29 |        |        |        |        | 565.29 |                  |                     |
| Exterior Wells          | MR-2S  | MR-6S  |        |        |        |        | 9                |                     |
|                         | 576.66 | 574.49 |        |        |        | 574.49 |                  |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | NRP-31 |        |        |        |        |        |                  |                     |
|                         | 564.34 |        |        |        |        | 564.34 |                  |                     |
| Exterior Wells          | MR-6S  | MR-7S  |        |        |        |        | 10               |                     |
|                         | 574.49 | 577.28 |        |        |        | 574.49 |                  |                     |
| <b>SWMU 6</b>           |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | NRP-25 |        |        |        |        |        |                  |                     |
|                         | 582.71 |        |        |        |        | 582.71 |                  |                     |
| Exterior Wells          | SW-1S  |        |        |        |        |        | 2                |                     |
|                         | 585.21 |        |        |        |        | 585.21 |                  |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | NRP-26 |        |        |        |        |        |                  |                     |
|                         | 580.96 |        |        |        |        | 580.96 |                  |                     |
| Exterior Wells          | SW-2S  |        |        |        |        |        | 5                |                     |
|                         | 585.95 |        |        |        |        | 585.95 |                  |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | RW-1   | PZ-1   | PZ-2   | PZ-3   | PZ-15  | NRP-27 | NRP-28           |                     |
|                         | 554.34 | 574.54 | 571.78 | 562.27 | 562.40 | 564.38 | 560.78           |                     |
| Exterior Wells          | SW-3S  |        |        |        |        |        |                  |                     |
|                         | 587.02 |        |        |        |        |        | 564.38           |                     |
|                         |        |        |        |        |        |        | 23               |                     |
|                         |        |        |        |        |        |        | 587.02           |                     |
| -----                   |        |        |        |        |        |        |                  |                     |
| Interior Piezometers    | NRP-32 | NRP-33 |        |        |        |        |                  |                     |
|                         | 579.83 | 576.34 |        |        |        |        | 579.83           |                     |
| Exterior Wells          | H-2SA  | SW-3S  | T-5S   | T-8S   |        |        |                  |                     |
|                         | 587.94 | 587.02 | 589.41 | 589.89 |        |        | 7                |                     |
|                         |        |        |        |        |        |        | 587.02           |                     |

**SWMU 7**

|                      |               |               |               |             |        |           |
|----------------------|---------------|---------------|---------------|-------------|--------|-----------|
| Interior Piezometers | <b>NRP-29</b> |               |               |             | 570.97 |           |
|                      |               |               |               |             |        | 570.97    |
| Exterior Wells       | <b>H-2SA</b>  | <b>SW-3S</b>  | <b>T-5S</b>   | <b>T-8S</b> |        | <b>16</b> |
|                      | 587.94        | 587.02        | 589.41        | 589.89      |        |           |
| <hr/>                |               |               |               |             |        |           |
| Interior Piezometers | <b>PZ-9</b>   | <b>NRP-30</b> | <b>RW-34</b>  |             |        |           |
|                      | 580.98        | 574.00        | 575.71        |             | 580.98 |           |
| Exterior Wells       | <b>T-8S</b>   |               |               |             |        | <b>9</b>  |
|                      | 589.89        |               |               |             | 589.89 |           |
| <hr/>                |               |               |               |             |        |           |
| Interior Piezometers | <b>RW-2</b>   | <b>PZ-11</b>  | <b>DPW-18</b> |             |        |           |
|                      | 569.17        | 573.90        | 570.88        |             | 573.90 |           |
| Exterior Wells       | <b>T-5S</b>   | <b>T-15S</b>  |               |             |        | <b>16</b> |
|                      | 589.41        | 590.27        |               |             | 589.41 |           |
| <hr/>                |               |               |               |             |        |           |
| Interior Piezometers | <b>DPW-19</b> | <b>NRP-35</b> |               |             |        |           |
|                      | 570.30        | 573.68        |               |             | 573.68 |           |
| Exterior Wells       | <b>T-15S</b>  | <b>T-43S</b>  |               |             |        | <b>11</b> |
|                      | 590.27        | 584.86        |               |             | 584.86 |           |

\*The OMPM Plan requires the 4<sup>th</sup> quarter shallow perimeter monitoring well elevations be used to establish the TLL until the 4<sup>th</sup> quarter of the following year. Since this program was approved in June of 2018, the elevations taken in June of 2018 will be used until the first 4<sup>th</sup> quarter elevation event under the revised program. From then on, the fourth quarter elevations will be used.

- On June 20, 2018 in accordance with the former compliance plan of action, ESOI completed monthly elevation monitoring at the following wells which exceeded their respective TLLs in the prior month. It is noted that the water level meter appears to have been improperly functioning at the time of the measurements and a camera will be used to determine the levels in June.

SWMU 5 Central: 557.1

- PZ-5: 569.83
- PZ-6: 560.74
- PZ-7: 560.00
- PZ-21: 562.08

SWMU 6: 566.9

- DPW-16: (well not usable - nearby replacement NRP-32 is operating)
- NRP-25: 582.71
- NPR-26: 580.96

SWMU 7: 570.8

- PZ-10: (well not usable - nearby wells are operating)
- PZ-11: 573.90
- DPW-20: (well not usable - nearby wells are operating)

- Leachate system maintenance included:

- Inspection of piezometers and recovery wells on SWMU 5, 6, and 7;
  - Recorded liquid level at each location with a control panel;
  - Verified functionality of all pumps without a control panel;
- Extended and added visibility markers to two broken piezometers on SWMU-6;

- Housekeeping;
- Evaluated installation of carbon drum filter at SWMU-6 leachate tank;
- RW-11
  - Valve train separation repaired;
- PZ-13
  - Leaking air at well head – airline connection repaired;
- NRP-25
  - Pulled pump, cleaned, airline purged of water, and repaired – still pumping slow;
- NRP-26
  - Pulled pump. Pump and transducer cleaned. Pump not functioning;
  - Redeveloped well;
  - Pump Replaced and transducer cleaned. Pumping strongly;
- NRP-32
  - Airline leak repaired;
- SWMU 6 Compressor Shed:
  - Reset compressor;
  - Emptied moisture buckets;
  - Changed oil in compressor engine;
  - Solenoid valve #2 failure. Installed splitter to maintain pumps;
  - 
  - Auto drain was observed to not be working. GFCI and breaker were tripped. Switched outlets. Drained moisture from endcap of pipe, electrical connections appeared good;
  - Solenoid valve #2 observed to be making abnormal noise at end of cycle. Shut off timer and installed splitter to maintain pumps. Replaced solenoid #2;
  - Added additional screws to north side of roof for security;
  - Staked and marked compressor and discharge lines on SWMU-6;
- SWMU 5 Compressor
  - Auto drain functioning
  - Drained moisture from controller; and

6. Continued operation and monitoring of the leachate extraction systems on SWMUs 5, 6, and 7.

**Summary of All CMI-Related Contacts with the Public:**

ESOI has not had any related contacts with the public during this reporting period.

**Summary of Potential or Encountered Problems and Rectification Actions:**

There is nothing to report in association with this topic for this reporting period.

**Projected Work:**

During the next reporting period it is anticipated that the following activities will occur:

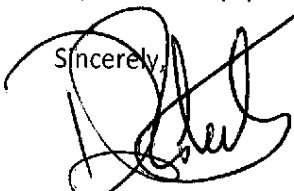
1. Initiate preparation of financial assurance documents for the recently approved corrective measures;

2. Initiate updates to the permit application to be consistent with the revised permit;
3. Initiate preliminary design alternatives for engineered controls consistent with revised permit;
4. Initiate modifications to the groundwater program consistent with the revised permit;
5. Revised monitoring schedule for the leachate extraction systems on SWMUs 5, 6, and 7;
6. Schedule replacement of DPW-21;
7. Sample additional leachate at SWMU 5 Central relative to adjacent monitoring wells;
8. Clean NRP-25 bladder pump (or replace if needed);
9. Replace #2 solenoid valve on SWMU-6 compressor;
10. Evaluation of alternative pumps for leachate collection;
11. Continued evaluation / installation of carbon drum filter at SWMU-6 leachate tank;
12. Continued redevelopment of leachate extraction wells in accordance with priority list, with the siltiest wells being addressed first as time and weather allows;
  - a. Priority redevelop of NRP-25, DPW-23, and NRP-30; and
13. Continued operation and maintenance of the leachate extraction systems on SWMUs 5, 6, and 7.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please do not hesitate to contact Stephen DeLussa at (215) 659-2001 ext. 15.

Sincerely,



Douglas E. Roberts  
President

ec: Stephen DeLussa, Envirosource Technologies, Inc.  
Mark Nielsen, Ramboll

Michael Momenee, The Mannik & Smith Group