



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
DIVISION OF WASTE AND HAZARDOUS SUBSTANCES
SOLID AND HAZARDOUS WASTE MANAGEMENT SECTION

89 KINGS HIGHWAY
DOVER, DELAWARE 19901

TELEPHONE: (302) 739-9403
FAX: (302) 739-5060

January 8, 2019

Certified Mail
Return Receipt Requested
7015 3430 0000 3952 2275

Mr. Brian Bolvin, P.E.
Site Engineer
Delaware Recyclable Products, Inc.
Waste Management of Delaware, Inc.
246 Marsh Lane
New Castle, Delaware 19720

Subject: Review of: *Permit Modification Application (Volumes 1, 2 and 3) for Vertical Expansion, DRPI Industrial Landfill (July 2018)*

Reference: Permit Modification Application for Vertical Expansion
Permit SW-15/02; File Code: SW 02-D
19 0108 02-D DRPI Permit Application Response 1 SW-15-02

Dear Mr. Bolvin:

The Department of Natural Resources and Environmental Control (DNREC; Department), Solid and Hazardous Waste Management Section (SHWMS) has reviewed the *Permit Modification Application, (Volume 1 of 3, Volume 2 of 3 and Volume 3 of 3) for Vertical Expansion, DPRI Industrial Landfill, New Castle, Delaware* (Permit Application), prepared by Geosyntec Consultants, dated July 2018, submitted to SHWMS on July 20, 2018.

In order to have a complete application that can easily be shared with the public, please address the following items:

1. Please make the following modifications throughout the above listed documents, as applicable:
 - a. Please revise all document titles, references, headers, and footers, as applicable.
 - b. Please revise all drawings included in the Permit Application (e.g., Operation and Maintenance Plan Drawings) to reflect current or proposed landfill conditions.
 - c. Please update all "Table of Contents," as applicable.
 - d. Verify all references to specific permit conditions as some of these references may have changed during recent modification(s).

Delaware's good nature depends on you!

- e. Please verify the acreage of the landfill. Several different acreages are referenced throughout the Permit Application.
2. Part I. Executive Summary:
 - a. Please revise “Delaware Regulations Governing Solid Waste” to state “Delaware’s *Regulations Governing Solid Waste.*” in the first paragraph of the summary.
3. Part II. Letter of Intent to Construct an Industrial Waste Landfill:
 - a. Please update Jason Sunde’s title from Environmental Program Manager to Environmental Program Administrator.
 - b. Please update the Solid Waste Permit Number to the current permit number.
4. Part III. Solid Waste Management Facility Application Form:
 - a. Please verify the total site area contained in Part 2 of the Solid Waste Management Facility Application. Several different acreages are referenced throughout the Permit Application.
 - b. Please submit statements required under 7 DE Del.C. Ch. 60, Subpart I, § 7902 (Statement required). Please see below for a link to the section:

<http://delcode.delaware.gov/title7/c079/sc01/index.shtml>

~~~~~ **PART V – OPERATIONS AND MAINTENANCE PLAN** ~~~~~

5. 1.2 Project Background:
  - a. Please update the cell(s) in which the current disposal operations are occurring.
  - b. Please verify that DRPI Landfill serves as a recycling facility, as stated in paragraph two of the section.
6. 2.2 Hours of Operation:
  - a. Please add detail (i.e., reasons to open on a holiday) to the statement “reserves the right to open for business if needed.”
7. 2.3 Volume of Waste:
  - a. Please update the tons per year average from 2013 to 2017.
8. 2.4.3 Unacceptable Waste:
  - a. Please correct the typo contained in the “White Goods” bullet.
9. 2.6.2 Staffing:
  - a. Please specify the number of staff that will fill each role listed in the section.
10. 3.1.1 (Equipment) Types and Quantities:
  - a. Please specify the quantity of each type of equipment listed in the section.

11. 3.4.1 Operational Cover:

- a. Please revise the first paragraph of the section. On numerous occasions, SHWMS Staff observed wind-blown litter throughout the site. Fortunately, SHWMS Staff has not observed litter migrating off of the landfill property. It is the Department’s concern that the potential for litter migrating off of the landfill property will increase as the landfill increases in height, if operational cover is applied only once every two weeks.

Section 6.9.2.2 of the DRGSW states “Cover. Approved cover material shall be applied at a frequency and thickness specified by the Department.” SHWMS recommends that six inches of approved, compacted cover material be placed over exposed waste at a minimum of once every week. On windy days, or when strong wind is forecast for the area, DRPI should immediately work the waste into the working-face of the landfill, and cover with six inches of approved, compacted operational cover at the end of operations for the day.

12. 3.4.3 Seeding:

- a. The Delaware Erosion and Sedimentation Control Handbook was last updated in 2016. Please update the year reference in the section from 1989 to 2016.

13. 3.4.4 Estimate of Borrow Requirements:

- a. Please update the amount of soil needed for the final cover system of the landfill. The estimated 500,000 cubic yards of soil is based on a final elevation of 130 feet mean sea level (MSL).

14. 3.5.1 Dust Control:

- a. The fourth paragraph of the section references Form J (Appendix V-B). Form J is not included in Appendix V-B. Please update the reference in the second paragraph or revise Appendix V-B.

15. 3.5.3 Dust Control:

- a. The second paragraph of the section references Form J (Appendix V-B). Form J is not included in Appendix V-B. Please update the reference in the second paragraph or revise Appendix V-B.
- b. Please revise the first sentence of the third paragraph of the section. A portion of the 13-acre area outside of Cell 6 will be occupied by Cell 6-2B.

16. 3.5.4 Odor Control:

- a. The second paragraph of the section references Form J (Appendix V-B). Form J is not included in Appendix V-B. Please update the reference in the second paragraph or revise Appendix V-B.

17. 3.5.6 Mud Control:

- a. The second paragraph of the section references Form J (Appendix V-B). Form J is not included in Appendix V-B. Please update the reference in the second paragraph or revise Appendix V-B.

18. 3.5.7 Control of Leachate Seeps:

- a. The second paragraph of the section references Form J (Appendix V-B). Form J is not included in Appendix V-B. Please update the reference in the second paragraph or revise Appendix V-B.

19. 3.6.2 Inspection of Incoming Loads:
  - a. The first sentence of the first paragraph states “DRPI will implement an inspection program for incoming loads on a routine basis.” Please define “routine basis”.
20. 3.6.4 Training:
  - a. Please update the section reference in the first sentence of the section.
21. 3.6.6 Unacceptable Waste and Hazardous Waste Response Procedures:
  - a. Please correct the typos in the first list of the section (Items 4 and 5).
22. 3.8.1 (Leachate Management) Introduction:
  - a. Please update the reference to the DRGSW included in the first paragraph of the section.
23. 3.8.3 Inspection and Maintenance:
  - a. The second sentence of the first paragraph states “Any deficiencies found during the routine inspections will be noted on the leachate monitoring report found in Appendix V-B, Form D.” The Leachate Daily Facility Inspection Log (Form D) does not have a field for deficiencies to be noted. Please revise the form to include a field for deficiencies to be noted.
24. 3.10.1 (Groundwater Control System) Introduction:
  - a. Please revise paragraph one of the section to accurately reflect site conditions. The paragraph states “From these sumps, a submersible pump removes the collected groundwater and discharges it into perimeter drainage channels that convey flow to the stormwater management ponds.” A portion of the groundwater underdrains discharge to the perimeter swale, but a portion of the groundwater underdrains discharge to the leachate force main.
25. 3.10.2 Inspection and Maintenance:
  - a. The second sentence of the first paragraph states “Any deficiencies found during the routine inspections will be noted on the leachate monitoring report found in Appendix V-B, Form D.” The Leachate Daily Facility Inspection Log (Form D) does not have a field for deficiencies to be noted. Please revise the form to include a field for deficiencies to be noted.
26. 3.11.2.1 Vegetative Stabilization:
  - a. The Delaware Erosion and Sedimentation Control Handbook was last updated in 2016. Please update the year reference in the section from 2014 to 2016.
27. 3.11.2.3 Permanent Vegetation:
  - a. The Delaware Erosion and Sedimentation Control Handbook was last updated in 2016. Please update the year reference in the section from 2014 to 2016.
28. 4.5 Fire Prevention Plan:
  - a. Please revise the first paragraph of the section to include DNREC as an agency that DRPI must report immediately to during a fire, as per permit conditions.

- b. Please revise paragraph 5 of the section. DRPI must immediately report a fire to DNREC, and must submit a written account of the fire, as per permit conditions.

29. Figures:

- a. Please update Figure No. V-1, to accurately reflect the current landfill configuration.

~~~~~ APPENDIX V-A: CONTINGENCY PLAN ~~~~~

30. 1.2 Project Background:

- a. Please update the cell in which the current disposal operations are occurring.

31. 4.2 (DRPI Arrangements with Emergency Response Teams) Fire Department:

- a. The first paragraph of the section states “In the event of an **emergency, Dial “911”** for the Wilmington Fire Department.”, while the *Leachate Pretreatment Facility Operations and Maintenance Manual* states “Call Minquadale Fire Company for providing fire protection for the plant.” Please update the fire department information for the section.

32. 6.2.4 Employee Training Program:

- a. Please update the section reference in the first paragraph of the section.

33. 6.5 Explosive Landfill Gas:

- a. Please update the explosive landfill gas monitoring frequency in paragraph 2 of the section. The permit and other sections of this application reference a lesser frequency of monitoring.

34. 6.13 Receipt of Unauthorized Waste:

- a. Please update the section reference in the first paragraph of the section.
- b. Please update paragraph 2 of the section. DRPI must notify DNREC as per Permit Condition VII.D of Solid Waste Permit SW-15/02.

35. 6.15.1 Groundwater Impacts:

- a. Please update the section reference in the first paragraph of the section.

36. Figures:

- a. Please update Figure No. V-A-1, to accurately reflect the current landfill configuration.
- b. Please update Figure No. V-A-2, to accurately reflect the current landfill configuration.

~~~~~ APPENDIX V-B: SAMPLE RECORD KEEPING FORMS ~~~~~

37. Sample Record Keeping Forms:

- a. The *Operations and Maintenance Plan* references Form J (Appendix V-B) several times in the plan. Form J is not included in Appendix V-B. Appendix V-B contains Form A through Form F. Please update the references in the *Operations and Maintenance Plan* to include all referenced forms or update the appendix to include all applicable forms.

~~~~~ *APPENDIX V-D: DRPI LFG ODOR CONTROL SYSTEM* ~~~~~

38. Please forward a copy of the updated Division of Air Quality (DAQ) permit for inclusion into this application, after the permit has been approved. It is the SHWMS's understanding that the DAQ is in the process of issuing of new permit for the landfill, to incorporate a second flare and increased overall flow.

~~~~~ *APPENDIX V-E: LEACHATE PRETREATMENT FACILITY* ~~~~~

39. Section 1, B, 1 Groundwater Collection System:
- a. Please revise the last paragraph of the section. The paragraph states "Pumps then lift the groundwater and discharge to the perimeter ditch which flows to the stormwater sediment basin." A portion of the groundwater underdrains discharge to the perimeter swale, but a portion of the groundwater underdrains discharge to the leachate force main.
40. Section 1, B, 3 Leachate Pretreatment System:
- a. Please update the first paragraph of the section.
41. Section 4, A, 2 System Description:
- a. Please revise the first paragraph of the section. The paragraph states "From these sumps, a submersible pump removes the collected groundwater and discharges it into perimeter drainage channels that convey the flow to the stormwater management ponds." A portion of the groundwater underdrains discharge to the perimeter swale, but a portion of the groundwater underdrains discharge to the leachate force main.
  - b. Please revise paragraph 3 of the section to accurately reflect site conditions.
42. Section 4, A, 3 Major Components:
- a. Please revise the section to accurately reflect site conditions.
43. Section 4, B, 2 System Description:
- a. Please correct the cell reference typo in paragraph 3 of the section.
44. Woodward-Clyde Drawing 3.1:
- a. Please revise the drawing to accurately reflect site conditions.
45. GZA Drawing C-3:
- a. Please revise the drawing to accurately reflect site conditions.
46. GZA Drawing C5-P003:
- a. Please revise the drawing to accurately reflect site conditions.
47. GZA Drawing C5-P004:
- a. Please revise the drawing to accurately reflect site conditions.

48. GZA Drawing C5-P005:
  - a. Please revise the drawing to accurately reflect site conditions.
  
49. Section 5, A, 1 Normal Operations:
  - a. Please revise paragraph 1 of the section to accurately reflect site conditions.
  - b. Please revise the first paragraph of the section. The paragraph states “Groundwater submersible pumps 4A, 4C, 5A, and 5D pump groundwater collected in sumps from the internal perimeter trench drain to perimeter ditches on the exterior of the landfill”. A portion of the groundwater underdrains discharge to the perimeter swale, but a portion of the groundwater underdrains discharge to the leachate force main.
  - c. Please verify that operating levels for the pumps, listed in paragraph 3, are accurate.
  
50. Section 6 (Equipment Catalog Sheets between Pages 6-2 and Pages 7-1):
  - a. Please verify that DRPI uses the Sensidyne equipment (Gas Sampling System, Deluxe Hazardous Materials Kit, Sensidyne Detector Tubes and Airflow Indicator Kit) included in the Permit Application.
  
51. Section 9, B, 3 Emergency Aid:
  - a. The first sentence of the section states “Call Minquadale Fire Company for providing fire protection for the plant.”, while Section 4.2 of the Contingency Plan states “In the event of an **emergency, Dial “911”** for the Wilmington Fire Department.” Please update the fire department information for the section.
  
52. Section 10, E, 6, a Test for Flammable Gas:
  - a. Please revise the section to incorporate language consistent with current industry accepted instrumentation.
  
53. Section 10, E, 6, c Test for Occupancy Deficiency:
  - a. Please revise the section to incorporate language consistent with current industry accepted instrumentation.
  
54. Appendix C – Material Safety Data Sheets:
  - a. Please update the material safety data sheets (MSDS) to safety data sheets (SDS) as required under the Hazard Communication Standard.
  
55. Appendix D – Leachate Tank Area Drawings:
  - a. Please provide a better copy of the Vandemark & Lynch, Inc. leachate tank drawing.

APPENDIX V-E: STORMWATER PLAN (SWP)

The following items are suggestions/recommendations to improve the SWP that was written in accordance with Delaware’s *Regulations Governing Storm Water Discharges Associated with Industrial Activities* for the

DNREC’s Surface Water Discharge Section, as this plan is directly referenced in the *Operations and Maintenance Plan* replacement package.

56. Facility Description Worksheet 1:

- a. Please update the Facility Contact for the worksheet.
- b. Paragraph 2 of the worksheet states “The total site encompasses approximately 203 acres, of which approximately 165 acres are permitted footprint.”, while the Solid Waste Management Facility Application has a total site area of 146 acres. Please verify the total DRPI property acreage and verify the acreage of the footprint of the landfill.

57. Inventory of Spills and Leaks Worksheet 5:

- a. Please include release information associated with NOV 18-SW-02, issued to DRPI by SHWMS on May 24, 2018.

58. Monitoring Worksheet 8:

- a. Please correct the typo in the fourth paragraph of the worksheet.
- b. Please update the permit number and issue date of the permit referenced in the fourth paragraph of the worksheet.
- c. Please update the Monitoring Schedule and Parameters (Page 30) to mirror the language included in Permit Condition IV.A.3 for Solid Waste Permit SW-15/02.

59. Monitoring Worksheet 10:

- a. Please update the permit number and issue date of the permit referenced in the second paragraph of the worksheet.

~~~~~ **PART VI – ENGINEERING REPORT** ~~~~~

60. 1.1 Terms of Reference:

- a. Please revise “Delaware Regulations Governing Solid Waste” to state “Delaware’s *Regulations Governing Solid Waste*.” in the first paragraph of the section.

61. 1.2 Project Overview:

- a. Please update the third paragraph of the section to accurately describe disposal operations at the landfill.
- b. Please update the permit number in paragraph 5 of the section.

62. 1.3 Engineering Report Organization:

- a. Please update the reference to the DRGSW in the first paragraph of the section.

63. 8.5.3 Local Heterogeneity:

- a. Please update the cover requirements in the second paragraph of the section.

64. Figures:

- a. Please update Figure No. VI-2, to accurately reflect current site conditions.

PART VI – C SOIL CHARACTERIZATION STUDY

65. Soil Characterization Study:
- a. Page VI-C 1 of the appendix is included twice. Please either remove the duplicate page from the certification or include page VI-C 2.

SUBSURFACE INVESTIGATION AND GEOTECHNICAL REPORT

66. Appendix B – Boring Location Plan:
- a. Please include the entire Boring Location Plan.

APPENDIX VI-E LEACHATE MANAGEMENT SYSTEM CALCULATIONS

67. Summary of Previous Analysis:
- a. Please update the cover condition reference contained in the header for the first list in the section.
68. Soil Data – Layer 1 (Cover and Daily):
- a. Please update the header and the body of the section to accurately reflect cover requirements for the landfill.
69. Figures:
- a. Please replace revised Drawing 8 of 28, after revisions (see Comment 87) are complete.
70. Attachment B – Leachate Management Evaluation:
- a. Please update the second paragraph of Section 3.3 (Soil Data). Please update the cover layer references and submit a copy of the section without mark-ups.

APPENDIX VI-H COVER SYSTEM CALCULATIONS

71. Drainage Component of Geomembrane:
- a. Please correct the typo in the last paragraph of the section.

APPENDIX VI-J TECHNICAL SPECIFICATIONS

72. Cleaning and Testing of HDPE Piping:
- a. Please correct the typo on Page 5 of the specifications.
73. Soils:
- a. Please update section 2.01.C.5 of the specifications with the updated total petroleum hydrocarbon level. The level was updated in the spring of 2018, to be consistent with the Operation and Maintenance Plan.
74. Geosynthetic Clay Liner:
- a. Please update Table 02072-1. The table was updated as part of a design variance approved in the spring of 2018.

75. Geomembrane:

- a. Please update the Test Procedures Table in section 2.03 of the geomembrane specifications. The table was last updated during February 2018.
- b. Please update the Table 02075-1 of the geomembrane specifications. The table was last updated during February 2018.
- c. Please update the Table 02075-2 of the geomembrane specifications. The table was last updated during February 2018.
- d. Please include Table 02075-3 of the geomembrane specifications. The table was included in the specifications that were updated during February 2018.

76. Landfill Gas High Density Polyethylene (HDPE) Pipe and Fittings:

- a. Please update section 3.03.D of the HDPE pipe and fittings specifications. The section referenced a project that was previously completed at the landfill.

77. Excavation:

- a. Please update section 1.05 of the excavation specifications to reference the State of Delaware.

78. Anchor Trench:

- a. Please update the entire anchor trench specification section with the section that was revised during February 2018.

79. Geocomposite:

- a. Please replace Table 02715-1 with the table that was revised as part of design variance approved during the spring of 2018.

PART VII – ENVIRONMENTAL ASSESSMENT REPORT

80. 3.1.1 Stormwater Quality and Management:

- a. Please verify the use of Recovermat at the landfill, and update paragraph three of the section accordingly.

81. 3.8.1 Surface Water Use:

- a. Please update the section, to accurately describe the source of water used for dust control.

82. 3.10.4 Litter:

- a. Please update the cover material requirements based on revisions to Section 3.4.1 of the Operations and Maintenance Plan.

PERMIT DRAWINGS (DRAWING NOS. 1 – 28)

83. Drawing 3 of 28:

- a. The label for Cell 1 is placed over a cell boundary line. Please adjust the label for Cell 1.

84. Drawing 5 of 28:
- a. Please verify that the listed wells, gas probes and piezometers shown on the schedule of existing subsurface monitoring features table are plotted on the drawing.
 - b. Please confirm that all of the subsurface monitoring features exist at the landfill, and have not been abandoned during operations or construction at the landfill.
85. Drawing 6 of 28:
- a. Please clearly show the phases (completed and proposed) of the Cells 1 – 3 Overlay.
86. Drawing 7 of 28:
- a. Please add detail to the drawing, similar to the level of detail shown on the drawings for Cells 1 – 3 Overlay, Phase 2 certification.
87. Drawing 8 of 28:
- a. Please update the constructed and proposed areas for Cells 1 – 3 Overlay.
 - b. Please verify that all underdrain and leachate risers are shown on the drawing, and are plotted correctly.
 - c. Please clarify the leachate corridor points shown on the drawing.
88. Drawing 10 of 28:
- a. Please indicate the depth of the anchor trench shown in Detail 6-6 of the drawing.
89. Drawing 12 of 28:
- a. Please verify that Note 9 is accurate. The leachate and underdrain risers are scheduled to be upgraded in 2019.
90. Drawing 14 of 28:
- a. Please provide the length of the overlap for the proposed final cover system that will be placed above the existing clay cap.
91. Drawing 26 of 28:
- a. Please confirm that the six inch HPDE elbow shown on Detail 2-25 is correct.
 - b. Please indicate the size of the wellhead riser depicted on Detail 2-25.

Please provide a review of our presented comments and submit a response to include document revisions as necessary within ninety (90) days of receipt of this letter. Please submit a hard copy that includes a cover letter addressing each of the above comments and a digital copy of the submission. The digital copy may be submitted via email to Michael.Melito@state.de.us (if under 20MB) or on digital disk.

Once the application package is deemed complete, the permit modification process will be initiated. The SHWMS staff is prepared to discuss or clarify our review. If you have any questions, please feel free to contact me at (302) 739-9403, option 8.

Sincerely,



Michael A. Melito
Environmental Scientist
Solid and Hazardous Waste Management Section

MAM:jmp
MAM19001

cc: Jason Sunde, Environmental Program Administrator, SHMWS (electronic only)
Arron Wayson, Environmental Compliance Specialist, SHWMS (electronic only)