

**PERMIT FOR CORRECTIVE ACTION AND
POST-CLOSURE CARE**

Effective Date: TBD

Expiration Date: TBD

Permittee: Diamond State Port Corporation
104 Hay Road
Edgemoor, DE 19809

State Permit Number: HW31B04

EPA Identification Number: DED000800284

Pursuant to Title 7 of the Delaware Code (Del. C.), Chapter 63, and the *Delaware Regulations Governing Hazardous Waste* (DRGHW), this Permit is issued to the Diamond State Port Corporation to perform a facility-wide corrective action and post-closure care activities at the four (4) closed surface impoundments located at the Port of Wilmington Edge Moor site (formerly the Chemours Edge Moor White Pigment Plant) in Edge Moor, Delaware, at latitude 39° 44' 81" north and longitude 75° 30' 38" west.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any attachments) and the applicable regulations contained in the DRGHW, Parts 260 through 264, 122 and 124 as specified in the Permit. Applicable regulations are those which are in effect on the date of issuance of this Permit in accordance with the DRGHW, §122.32(c). This authorization shall not be used as a reason for noncompliance with any other State or Federal Regulation.

This Permit is based on information provided to the State of Delaware Department of Natural Resources and Environmental Control (DNREC) by the Permittee.

Any inaccuracies found in this submitted information may be grounds for the termination, revocation and re-issuance, or modification of this Permit in accordance with the DRGHW, §§ 122.41, 122.42, and 122.43. The Permittee must inform DNREC of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This Permit is effective as of *****, 2021 and shall remain effective until *****, 2031 unless revoked or reissued under the DRGHW, § 122.41, terminated under the DRGHW, § 122.43, or continued in accordance with the DRGHW, § 122.51(a).

Qazi Salahuddin
Environmental Program Administrator
Remediation Section
Division of Waste and Hazardous Substances

Date

MODULE I

STANDARD PERMIT CONDITIONS

I. A. EFFECT OF PERMIT:

1. This Permit authorizes the implementation of corrective actions and post closure care as necessary to protect human health and the environment.
2. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege, nor does it authorize any injury to persons or property, or invasion of other private rights, or any infringement of State or local laws or regulations (DRGHW §§ 122.30(g) and 122.40(b) and (c)). Compliance with this Permit during its term constitutes compliance, for purposes of enforcement, with 7 Del. C., Chapters 60 and 63, except for those requirements not included in the permit which become effective by statute or which are promulgated under the DRGHW, §§ 268 and 122.4(a). Compliance with the terms of this Permit does not constitute a defense to any Order issued or any action brought under 7 Del. C., Chapter 60; 7 Del. C., Chapter 63; 7 Del. C., Chapter 91; §§ 3008(a), 3008(h), 3013, or 7003 of RCRA; §§ 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et. seq. Commonly known as CERCLA); or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS:

1. Permit Modification, Revocation and Reissuance, and Termination:

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in the DRGHW, §§ 122.41, 122.42, and 122.43. The filing of a request for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition (DRGHW § 122.30(f)).

2. Permit Renewal:

- a. This Permit may be renewed as specified in the DRGHW, § 122.30(b) and Permit Condition I.E.2.
- b. Review of any application for a permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations and laws.

3. The post-closure care obligations contained in this permit shall continue regardless of whether the Permittee continues to operate or ceases operation and closes. The Permittee is obligated to continue to implement post-closure care under the conditions of this Permit regardless of the operational status of the facility. The Permittee must submit an application for a new permit at least 180 days before this permit expires pursuant to DRGHW §122.10(h), unless the Permit has been modified to terminate the post-closure care schedule of compliance and the Permittee has been released from the requirements for financial assurance for post-closure care.

I.C. SEVERABILITY:

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby (DRGHW § 124.12(a)(2)).

I.D. DEFINITIONS:

For purposes of this Permit, terms used herein shall have the same meaning as those in the DRGHW, unless this Permit specifically provides otherwise; where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by 7 Del. C. or a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. The following definitions also apply to this Permit:

1. Day – A calendar day, the mean solar day beginning at midnight.
2. Facility – For the purpose of management of a hazardous waste and implementing corrective action in Module II, as required by the DRGHW, § 264.101, facility means all contiguous property under the control of the owner or operator.
3. Hazardous Constituent – Any constituent identified in Appendix VIII of the DRGHW § 261, or any constituent identified in Appendix IX of the DRGHW § 264.
4. Secretary – Secretary of DNREC or his/her designee or authorized representative.
5. Release – Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.
6. Solid Waste Management Unit – Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

I.E. DUTIES AND REQUIREMENTS:

1. Duty to Comply:

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by a variance issued pursuant to 7 Del. C., § 6314. Any permit noncompliance, other than noncompliance authorized by a variance, constitutes a violation of 7 Del. C., Chapters 60 and 63 and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

2. Duty to Reapply:

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new permit at least 180 days prior to the permit expiration.

3. Permit Expiration:

Pursuant to § 122.50 of the DRGHW, this Permit shall be effective for a fixed term of ten (10) years. Pursuant to § 122.51 of the DRGHW, as long as DNREC is the permit issuing authority, this Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete application and, through no fault of the Permittee, the Secretary has not issued a new permit under § 124.15 of the DRGHW on or before the expiration date of this Permit.

4. Need to Halt or Reduce Activity Not a Defense:

It shall not be a defense for the Permittee, in an enforcement action that it would have been necessary, to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

5. Duty to Mitigate:

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures to prevent significant adverse impacts on human health and/or the environment.

6. Proper Operation and Maintenance:

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance/quality control procedures.

7. Duty to Provide Information:

The Permittee shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Secretary, upon request, copies of records required to be kept by this Permit (DRGHW §§ 122.30(h) and 264.74(a)).

8. Inspection and Entry:

Pursuant to the DRGHW, § 122.30(i), the Permittee shall allow the Secretary, or an authorized representative, upon the presentation of credentials and other documents, as may be required by law, to:

- a. Enter the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- b. Have access to and copy any records that must be kept under the conditions of this Permit;

- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- d. Sample or monitor for the purposes of assuring permit compliance or as otherwise authorized by 7 Del. C., Chapter 63 and the DRGHW, any substances or parameters at any location.

9. Monitoring and Records:

Pursuant to § 122.30(j) of the DRGHW, the Permittee shall comply with the following requirements:

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. All sampling and analyses shall be of adequate quality, scientifically valid, of known precision and accuracy, and of acceptable completeness, representativeness, and comparability. Laboratory analysis of each sample must be performed using an appropriate method for testing the parameter(s) of interest taking into account the sample matrix. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of the DRGHW, § 261, or an equivalent method approved by the Secretary. Analytical methods must be the appropriate method as specified in "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods SW-846", 3rd edition as updated or an equivalent method as approved by the Secretary.
- b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by the DRGHW, § 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Secretary at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility (DRGHW § 264.74). The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the facility, and, for disposal activities, for the post closure care period as well (DRGHW § 122.30(j)(2)).
- c. Pursuant to DRGHW, § 122.30(j)(3), records of monitoring information shall specify:
 - i. The dates, exact place, and times of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The dates analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.

10. Reporting Planned Changes:

The Permittee shall give notice to the Secretary, as soon as possible, of any planned physical alterations or additions to the facility that may impact the Solid Waste Management Units (SWMUs).

11. Reporting Anticipated Noncompliance:

The Permittee shall give advance notice to the Secretary of any activity or planned changes in the SWMUs, which may result in noncompliance with permit requirements.

12. Transfer of Permits:

- a. This Permit is not transferable to any person, except after notice to the Secretary (DRGHW § 122.30(1)(3)). The Secretary may require modification or revocation and reissuance of this Permit pursuant to the DRGHW § 122.40, in order to identify the new Permittee and incorporate such other requirements as may be necessary under the appropriate Act.
- b. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner or operator in writing of the requirements of the DRGHW, §§ 264 and 122 and this Permit (DRGHW § 264.12(c)).

13. Incident Reporting:

- a. The Permittee shall comply with Permit Conditions I.E.13.b and c, pursuant to the DRGHW, §§ 264.56 and 122.30(1)(6).
- b. The Permittee shall report to the Secretary any noncompliance which may endanger human health or the environment. Any such information shall be reported immediately from the time the Permittee becomes aware of the circumstances, provided there is no delay in emergency response results. The report shall include the following:
 - i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies;
 - ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility; and
 - iii. The description of the occurrence and its cause shall include:
 - 1) Name, address, telephone number of the owner or operator;
 - 2) Name, address, telephone number of the facility;
 - 3) Date, time, and type of incident;
 - 4) Name and quantity of materials involved;
 - 5) The extent of injuries, if any;
 - 6) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

7) Estimated quantity and disposition of recovered material that resulted from the incident.

- c. A written submission shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times), whether the noncompliance has been corrected, and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Secretary may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days.

14. Other Noncompliance:

The Permittee shall report all instances of other noncompliance, not reported under I.E.13, immediately to DNREC. The reports shall be made within the timeframes and contain the information of Permit Conditions I.E.13.b and c.

15. Other Information:

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the application, or submitted incorrect information in an application or in any report to the Secretary, the Permittee shall promptly submit such facts or information.

I.F. SIGNATORY REQUIREMENT:

All applications or reports submitted to or requested by the Secretary, his/her designee, or authorized representative, shall be signed and certified in accordance with the DRGHW, §§ 122.11 and 122.30(k). In addition, certification by a Professional Engineer or Geologist registered in the State of Delaware shall be provided as required by the DRGHW.

I.G. APPROVAL/DISAPPROVAL OF SUBMISSIONS:

DNREC will review the plans, reports, schedules and other documents (hereinafter collectively referred to as “submission”) submitted which require DNREC approval. DNREC will notify the Permittee in writing of DNREC’s approval, conditional approval, or disapproval of each submission.

Each submission required by this Permit is, upon approval by the Secretary, incorporated into this Permit. Any non-compliance with such DNREC-approved submission shall be deemed noncompliance with this Permit. A conditionally approved submission including any terms of such conditional approval set forth in DNREC’s decision, shall constitute the DNREC-approved submission and shall be incorporated into this Permit.

In the event of DNREC’s conditional approval of submission, DNREC shall specify, in writing, any deficiencies in the submission and the terms upon which approval of the submission is conditioned. If the Permittee disputes any term upon which approval of the submission was conditioned, the Permittee may initiate Dispute Resolution pursuant to Permit Condition I.I. In the event of DNREC disapproval of a submission, the Secretary shall specify the deficiencies in writing. Such disapproval shall not be subject to the Dispute Resolution provision set forth in Permit Condition I.I. The Permittee shall modify the submission to correct/address the specified

deficiencies within a reasonable time period established by the Secretary taking into account the tasks to be performed, and submit the revised submission to DNREC for approval. If the revised submission is disapproved, DNREC will notify the Permittee of the deficiencies in writing and specify a schedule for the Permittee to correct the deficiencies as directed by DNREC and forward the revised submission to DNREC within the time period specified by DNREC. In the event the Permittee disagrees with DNREC's disapproval of the revised submission the Permittee shall notify DNREC in writing and the disagreement shall be resolved in accordance with the Dispute Resolution provision in Permit Condition I.I. of this Permit.

I.H. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE SECRETARY:

The Permittee shall provide all reports, notifications, or submissions in two paper copies, plus one copy by way of an electronic medium acceptable to both the Permittee and the Department. The electronic submittal shall be provided as a single electronic document such as a Portable Document Format (.pdf) file, or other electronic format acceptable to both the Permittee and the Department.

In addition to all other formats and submittals, all monitoring analytical results and measurements shall be provided to DNREC in an electronic format specified by the policy of the Remediation Section (RS) of DNREC that is in effect at the time of submission. All submissions shall be in accordance with the Site-wide Data Management Plan (Permit Attachment 2).

I.I. DISPUTE RESOLUTION:

Except as otherwise provided in this Permit, in the event the Permittee disagrees, in whole or in part, with DNREC disapproval of any submission required by this Permit, the Permittee shall notify DNREC in writing of its objections, and the basis therefore, within thirty (30) days of receipt of DNREC's disapproval.

Such notice shall set forth the specific matters in dispute, the basis for the Permittee's belief that its position is consistent with the permit requirements, and any supporting documentation.

DNREC and the Permittee shall have an additional thirty (30) days from DNREC's receipt of the notification to meet or confer to resolve any dispute. In the event an agreement is reached, the Permittee shall submit the revised submission and implement the same in accordance with such agreement.

In the event DNREC and the Permittee are not able to reach an agreement within this thirty (30) day period, the Permittee shall have the opportunity to submit written comments regarding DNREC's decision to, and receive a written decision from the DNREC Secretary or his delegate. DNREC will notify the Permittee in writing of its decision and the Permittee shall comply with the terms and conditions of DNREC's decision. The Permittee does not waive its right to assert any and all available defenses in a proceeding to enforce this Permit, nor does it waive any statutory or regulatory rights it may have, if any, to affirmatively challenge DNREC's decision in the dispute.

I.J. CONFIDENTIAL INFORMATION:

In accordance with the DRGHW, § 122.12, the Permittee may claim confidential any information required to be submitted by this Permit.

I.K. WASTE MINIMIZATION:

The Permittee shall certify no less often than annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment. The Permittee shall maintain each such certification of waste minimization at the facility until closure of such facility (DRGHW § 264.73(b)(9)).

I.L. LAND DISPOSAL RESTRICTIONS:

All activities of the Permittee which involve the land disposal of hazardous waste are subject to the provisions of the DRGHW, § 268.

I.M. ANNUAL REPORTS:

Pursuant to the DRGHW, §§ 262.41 and 264.75, the Permittee shall meet Annual Reporting requirements. The Annual Report shall be submitted by March 1st of each calendar year and shall contain the information required in the DRGHW, §§ 262.41 and 264.75.

I.N. HAZARDOUS WASTE CONTINGENCY PLAN:

The Permittee shall maintain at the facility, for the duration of this Permit, a Hazardous Waste Contingency Plan to address potential releases from any SWMUs. This Hazardous Waste Contingency Plan shall be prepared in accordance with the applicable requirements of § 264 of the DRGHW.

I.O. DUTY TO MAINTAIN DOCUMENTATION AT THE FACILITY:

Pursuant to the DRGHW § 264.73, the Permittee shall maintain at the facility, during the term of this Permit, all documents required by this Permit and the DRGHW.

MODULE II

FACILITY-WIDE CORRECTIVE ACTION

II.A. CORRECTIVE ACTION FOR CONTINUING RELEASES; PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT:

1. Section 3004(u) of RCRA, 42 U.S.C. § 6924(u), and § 264.101 of the *Delaware Regulations Governing Hazardous Waste* (DRGHW), provide that all permits issued after November 8, 1984 must require corrective action as necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit (SWMU), regardless of when waste was placed in the unit.
2. Under § 3004(v) of RCRA, 42 U.S.C. § 6924(v), §§ 6305(a)(3) and 6307(d) of 7 Del. C., Chapter 63, and § 264.101(c) of the DRGHW, DNREC may require that corrective action at a permitted facility be taken beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator of the facility concerned demonstrates to the satisfaction of DNREC that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action.
3. Section 3005(c)(3) of RCRA, 42 U.S.C. § 6925(c)(3), §§ 6305(a)(3) and 6307(d) of 7 Del. C., Chapter 63, and § 122.32(a)(2) of the DRGHW provide that each permit shall contain such terms and conditions as the DNREC determines necessary to protect human health and the environment.
4. This Permit requires the Permittee to conduct a RCRA Facility Investigation (RFI) for potential or suspected releases of hazardous waste or hazardous constituents at specified SWMUs identified at the facility. The RFI will be performed under two phases, a Phase I RFI and a Phase II RFI. The purposes of the Phase I RFI are to evaluate the nature and extent of potential or suspected releases from SWMUs, to screen SWMUs from further investigation, to focus the RFI, and to determine whether interim/stabilization measures are necessary. The purpose of the Phase II RFI is to thoroughly evaluate the nature and extent of suspected releases of hazardous waste and hazardous constituents, and their degradation by-products from regulated units and SWMUs, at the facility based upon the findings in the Phase I RFI. The RFI includes the collection of site specific data and an evaluation of potential impacts to human health and the environment from potential or suspected contamination from the facility. The RFI will gather all data necessary for the DNREC to determine whether a Corrective Measures Study (CMS) is required. If, on the basis of the RFI findings and any other relevant information, the DNREC determines that a CMS is necessary, the Permittee will be required to conduct a CMS for those releases from SWMUs which threaten human health or the environment.
5. The Permittee may have completed some of the tasks required by this Permit and may have some of the information and data required by this Permit. Previous work may be used to meet the requirements of this Permit. Unless previously approved by the DNREC, such previous work must be submitted to and approved by the DNREC in accordance with permit conditions I.G. (Approval/ Disapproval of Submissions).

6. The Permittee shall prepare facility-specific scopes of work and reports relating to Interim Measures, RCRA Facility Investigation, Corrective Measures Study, and any Risk Screening or Risk Assessment in accordance with EPA guidance documents available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. The Permittee shall establish specific and appropriate elements of such scopes and reports to the DNREC's satisfaction under conditions I.G. of this Permit (Approval/ Disapproval of Submissions).
7. Within 90 days following the effective date of this Permit, the Permittee shall submit a Public Participation Plan, developed in accordance with EPA's Guidance document (https://www.epa.gov/sites/production/files/2017-01/documents/final_rcra_ppm.pdf), and to DNREC's satisfaction under conditions I.G. of this Permit (Approval/Disapproval of Submissions). The Permittee shall implement the approved Public Participation Plan throughout all phases of Corrective Action subject to this Permit.

II.B. INTERIM MEASURES:

1. The Permittee may, at any stage of the RFI, if applicable, submit to the DNREC, in writing, a proposal to perform corrective action interim measures for the remediation of any release of hazardous waste or hazardous constituent at or from a SWMU. Any such proposal shall include a schedule for performance of such interim measures. For any releases to soil, groundwater, sediment and surface water, the Permittee must demonstrate in such proposal, to the DNREC's satisfaction, that the subsurface conditions and contaminant plume relating to such release have been adequately characterized and that the proposed interim measures will adequately remove, contain, or treat the released hazardous waste or hazardous constituents as necessary to protect human health and the environment. The nature and extent of releases to other media shall likewise be adequately characterized and evaluated by the Permittee in such a proposal. The DNREC shall review such proposal and determine whether such a proposal will be considered for approval and whether such interim measures are of such scope that they require implementation of the public notice requirements specified under II.F.1, Corrective Measures Remedy Selection. The DNREC shall notify the Permittee of the approval or disapproval of the interim measures proposal. If the DNREC approves such a proposal, the Permittee shall be allowed to dispense with certain stages of the investigation, as described in the DNREC's approval of the interim measures proposal. No term or condition of this Permit, except as otherwise provided for by this Permit, shall be affected by such proposal until such time as this Permit has been modified to include such proposal. As appropriate, the DNREC or the Permittee may seek modification of this Permit pursuant to § 6305(a)(3) of 7 Del. C., Chapter 63, and §§ 122.41 and 122.42 of the DRGHW.
2. If the DNREC determines, on the basis of information submitted by the Permittee pursuant to Permit Condition II.D. (RCRA Facility Investigation – Phase I), II.E. (RCRA Facility Investigation – Phase II), II.I. (Emergency Response; Release Reporting), or II.K. (Solid Waste Management Unit Assessment) or any other information, that corrective action is necessary to protect human health or the environment from a release of hazardous waste or constituents from a SWMU, the Permittee may be required to implement Interim Measures.

- a. Within ninety (90) calendar days of receipt of the DNREC's notice to implement corrective action Interim Measures at specified SWMUs, the Permittee shall submit to the DNREC an Interim Measures Plan (Plan). The Plan must be approved by the DNREC in accordance with Permit Conditions I.G. (Approval/Disapproval of Submissions) of this Permit. This Plan shall be developed in accordance with EPA Guidance for Interim Measures available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.
- b. According to the approved schedule, the Permittee shall submit to the DNREC the plans required by the Interim Measure Design Program, as described in the EPA Guidance document for Interim Measures available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. These plans must be approved by the DNREC in accordance with Permit Conditions I.G. (Approval/Disapproval of Submissions) of this Permit.
- c. According to the approved schedule, the Permittee shall submit to the DNREC for approval the reports. The Interim Measures Report shall be developed in accordance with EPA Guidance for Interim Measures available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.
- d. Nothing in this Permit shall preclude the Permittee from performing Interim Measures at any time either to reduce or eliminate the risk to human health or the environment, or to prevent or reduce the spread of contamination. Such measures, (e.g., source removal, capping, groundwater pump and treat) may be taken at any time during the term of this Permit.
- e. Nothing in this Permit shall limit the DNREC's authority to undertake or require any person to undertake response action or corrective action under any law, including but not limited to, 7 Del. C., Chapter 63, as amended. Nothing in this Permit shall relieve the Permittee of any obligation it may have under any Federal or State law, including, but not limited to, § 103 of CERCLA, to report releases of hazardous waste, hazardous constituents or hazardous substances to, at, or from the facility.

II.C. RCRA FACILITY ASSESSMENT – RFA:

The EPA identified seventeen (17) potential Solid Waste Management Units (“SWMUs”) at the facility in a letter, dated August 8, 1986. Additional SWMUs were identified by the Permittee after August 8, 1986, for a total of twenty-seven (27). All twenty-seven (27) of these potential SWMUs are listed in the Permittee's Facility-Wide Corrective Action Plan (CAP), dated November 23, 2004. The DNREC approved this document on December 2, 2004. In October 2005 and October 2008, following completion of the CAP, two (2) additional SWMUs were identified by the Permittee for a total of twenty-nine (29). These additional SWMUs (identified as SWMU 28 and SWMU 29) were incorporated and investigated in the Phase I and II RCRA Facility Investigations.

The RCRA Facility Assessment was completed with the above submittals.

II.D. RCRA FACILITY INVESTIGATION – RFI PHASE I:

1. Phase I RCRA Facility Investigation Plan Submission:

Within ninety (90) days of the effective date of this Permit, the Permittee shall submit for DNREC's approval, a Phase I RCRA Facility Investigation (RFI) Work Plan. The Phase I RFI Work Plan must be approved by the DNREC in accordance with Permit Conditions I.G. (Approval/Disapproval of Submissions Resolution).

2. Phase I RCRA Facility Investigation Report:

- a. The Permittee shall submit a Phase I RCRA Facility Investigation (RFI) Report to the DNREC. The Phase I RFI Report shall include an analysis, summary and results of all investigations performed pursuant to the Phase I RFI Plan. The objectives of the Phase I RFI Report are to document that the investigation and data are sufficient in quality (e.g., quality assurance and quality control (QA/QC) procedures have been followed) and scope (quantity) to adequately characterize the nature and extent of contamination, potential threat to human health and the environment, and to support the Corrective Measures Study. The Phase I RFI Report shall conform to the applicable RFI requirements of EPA Guidance for RCRA Facility Investigations, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.
- b. The Phase I RFI Report shall include a discussion of the need for and feasibility of implementing interim measures immediately, (see Permit Condition II.B., Interim Measures).
- c. The Phase I RFI Report was submitted to the Department by the Dupont CRG in April of 2009.

II.E. RCRA FACILITY INVESTIGATION – RFI PHASE II:

Within ninety (90) days after the receipt of DNREC's approval of the Phase I RFI Report, the Permittee shall submit to DNREC, a Phase II RFI Work Plan.

1. Phase II RCRA Facility Investigation Report:

- a. The Permittee shall submit a Phase II RCRA Facility Investigation (RFI) Report to the DNREC. The Phase II RFI Report shall include an analysis, summary and results of all investigations performed pursuant to the Phase II RFI Plan. **The Phase II RFI Report shall also summarize the salient findings under the Phase I Report.** The objectives of the Phase II RFI Report are to document that the investigation and data are sufficient in quality (e.g., quality assurance and quality control (QA/QC) procedures have been followed) and scope (quantity) to adequately characterize the nature and extent of contamination, potential threat to human health and the environment, and to support the Corrective Measures Study. The Phase II RFI Report shall conform to the applicable RFI requirements of EPA Guidance for RCRA Facility Investigations, available at: http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.
- b. The Phase II RFI Report shall include a discussion of the need for and feasibility of implementing interim measures immediately, (see Permit Condition II.B., Interim

Measures).

- c. The Phase II RFI Report was submitted to the Department by Parsons in March of 2011.

II.F. CORRECTIVE MEASURES STUDY:

1. If the DNREC determines, on the basis of the RFI or any other information, that corrective measures for releases of hazardous waste or hazardous constituents are necessary to protect human health or the environment considering site-specific risk and other factors, the DNREC will advise the Permittee of this determination, and the reasons therefore, in writing. The Permittee shall submit to the DNREC for approval a Corrective Measures Study (CMS) Plan within ninety (90) days of receipt of notification of such determination. The CMS Plan shall include a schedule for expeditious performance of the study. The plan shall fulfill the applicable requirements of EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. Corrective Measures Study Requirements, and must be approved by the DNREC, in accordance with Permit Condition I.G. (Approval/Disapproval of Submissions) of this Permit.

While under the care of Chemours all work necessary prior to the CMS was completed. The Phase I and II site investigations indicated very limited impacts to the site. (attached) The site hydrogeologic investigation concluded that the Colombia sands were lenticular and disconnected and that upper water bearing units were perched and disconnected. (attached) Additionally, these upper deposits are underlain by a thick section of Potomac clay forming an aquitard. The Risk assessment concluded that any present contamination posed no immediate risk to human health or the environment as long as it remained in place. (attached)

The property was acquired by the DSPC in 2017 as part of a expansion of the Port of Wilmington. The site's proposed reuse is for a two (2) berth container offloading and staging area. As such site construction plans call for a general site regrading with limited cutting and impervious capping of nearly the entire site.

The detailed site investigation data, the lack of human health and environmental risk, and the site's proposed reuse provide for the Department's determination that a CMS study is not necessary and that a presumptive remedy of capping and implementation of a contaminated materials management plan (attached) during site construction will provide for adequate protection of human health and the environment and the most viable remedy alternative. Per the attached Statement of Basis that remedy is proposed.

Following construction activities, a Uniform Environmental Covenant will be established for the site which will establish appropriate institutional controls protect the remedy in perpetuity.

II.G. CORRECTIVE MEASURES IMPLEMENTATION:

1. Corrective Measures Remedy Selection:

Based on reports and information submitted by the Permittee during the RFI, the CMS, and other relevant information, the DNREC may require the Permittee to evaluate further,

and report upon, one (1) or more additional remedies or develop particular elements of one (1) or more proposed remedies. DNREC will evaluate the CMS and approve a remedy in accordance with the evaluation criteria in the CMS Guidance and other applicable requirements. Such remedial requirements will be incorporated into this Permit pursuant to § 6305(a)(3) of 7 Del. C., Chapter 63, and §§ 122.41 and 122.42 of the DRGHW.

2. Corrective Measures Implementation:

- a. Within ninety (90) days of receipt of the DNREC's written approval of the Corrective Measures Remedy, the Permittee shall submit a Corrective Measure Implementation (CMI) Work Plan, including a Schedule, for the DNREC's approval in accordance with the EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. After approval of the CMI Work Plan, the Permittee shall submit the Corrective Measure Design Reports to the DNREC in accordance with the EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. Given that CMI in this case is contingent upon other permits and their associated actions submittal of a CMI Work Plan may be delayed.
- b. The Corrective Measure Final Design Report shall be submitted to the DNREC as a Class III Permit Modification request in accordance with the requirements of § 122.42 of the DRGHW. Upon completion of the public notice and public meeting requirements and upon the DNREC's approval of the CMI Final Design Report, the Permittee shall develop and implement construction in accordance with procedures, specifications, and schedules in the approved Final CMI Design Report and CMI Work Plan in accordance with the EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.
- c. Upon completion of construction and upon an initial period of performance of monitoring the corrective measure(s), the Permittee shall prepare and submit copies of the final CMI Report to the DNREC which delineates the implemented corrective measures, design, operation and maintenance, and performance of the constructed system(s) and complies with the EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm. Final "as built" plans and specifications of the corrective measures systems shall be certified by a Professional Engineer registered with the State of Delaware and shall be submitted to the DNREC with the final CMI Report.
- d. CMI Progress Reports shall be provided on a quarterly and annual basis to the DNREC as delineated in accordance with the EPA Guidance, available at http://www.epa.gov/reg3wcmd/ca/ca_resources.htm.

II.H. EVALUATION OF THE SELECTED REMEDY:

Commencing one (1) year from the submittal date of the final CMI Report, the Permittee shall submit an annual progress report on the remedy performance. If DNREC determines that the selected remedy will not comply with the media clean-up requirements, the DNREC may require the Permittee to perform additional studies and/or perform modifications to the existing Corrective Action remedy. If necessary, the DNREC or the Permittee may seek modification of

this Permit pursuant to § 6305(a)(3) of 7 Del. C., Chapter 63, and §§ 122.41 and 122.42 of the DRGHW to implement modifications to the existing Corrective Measures Remedy.

II.I. EMERGENCY RESPONSE; RELEASE REPORTING:

1. Emergencies:

If, at any time during the term of this Permit, the Permittee discovers that a release of hazardous waste or hazardous constituents at or from the facility is presenting or may present an imminent and substantial endangerment to human health or the environment, and such release is not subject to the Contingency Plan and Emergency Procedures as defined in the portion of the RCRA Permit issued by the DNREC, the Permittee shall:

- a. Notify the DNREC as soon as practicable of the source, nature, extent, location and amount of such release, the endangerment posed by such release and the actions taken and/or to be taken, to the extent known, to address such release. Such notification shall be confirmed in writing within three (3) business days of discovery of such release.
- b. Unless otherwise directed by the DNREC, immediately take such actions as are necessary and appropriate to address such release.

2. Releases:

The Permittee shall notify DNREC in writing of the nature, source, extent, and location of a release of hazardous waste or hazardous constituents at or from the facility within seven (7) business days of discovery of such release which:

- a. Is not being addressed by corrective measures at the time of such discovery;
- b. Is not being addressed pursuant to permit conditions II.B., Interim Measures, or II.I.1, Emergencies;
- c. Is not being addressed under the Contingency Plan and Emergency Procedures; and
- d. Is not subject to reporting under the “Reporting of a Discharge of a Pollutant or an Air Contaminant” program at 7 DE Admin. Code § 1143 because the release is believed to be at or below the Delaware Reportable Quantity for such hazardous waste or hazardous constituent.

3. Based on the information submitted in Permit Condition II.I.2 (Releases), the DNREC may require the SWMU to be included in an ongoing RCRA Facility Investigation or may require Interim Measures (see Permit Condition II.B.).
4. Nothing in this Permit shall limit the DNREC’s authority to undertake or require any person to undertake response action or corrective action under any law, including but not limited to, 7 Del. C. Chapter 63, §§ 104 or 106 of CERCLA, 42 U.S.C. §§ 9604 or 9606, and § 7003 of RCRA, 42 U.S.C. § 6973. Nothing in this Permit shall relieve the Permittee of any obligation it may have under any law, including, but not limited to, §

103 of CERCLA, to report releases of hazardous waste, hazardous constituents or hazardous substances to, at or from the facility.

II.J. GUIDANCE DOCUMENTS:

In addition to the guidance documents specified elsewhere in this permit or attachments, the following websites provide links to all relevant guidance documents:

1. EPA's corrective action website: <http://www.epa.gov/correctiveaction>
2. EPA Region 3 website: <http://www.epa.gov/reg3wcmd/correctiveaction.htm>

II.K. SOLID WASTE MANAGEMENT UNIT (SWMU) ASSESSMENT:

1. The Permittee shall notify the DNREC in writing, of any newly identified SWMU at the facility, no later than thirty (30) days after the date of discovery. The notification shall include, but not be limited to, the following known information:
 - a. A description of the SWMUs type, function, dates of operation, location (including a map), design criteria, dimensions, materials of construction, capacity, ancillary systems (e.g., piping), release controls, alterations made to the unit, engineering drawings, and all closure and post-closure information available, particularly whether wastes were left in place.
 - b. A description of the composition and quantities of solid wastes processed by the units with emphasis on hazardous wastes and hazardous constituents.
 - c. A description of any release (or suspected release) of hazardous waste or hazardous constituents originating from the unit. Include information on the date of release, type of hazardous waste or hazardous constituents, quantity released, nature of the release, extent of release migration, and cause of release (e.g., overflow, broken pipe, tank leak, etc.). Also, provide any available data that quantifies the nature and extent of environmental contamination, including the results of soil and/or groundwater sampling and analysis efforts. Likewise, submit any existing monitoring information that indicates releases of hazardous waste or hazardous constituents has not occurred or is not occurring. The Permittee may refer to information regarding releases previously submitted to the DNREC under Permit Condition II.I. (Emergency Response; Release Reporting) and II.B (Interim Measures).
 - d. A discussion of the need for and feasibility of implementing interim measures immediately, see Permit Condition II.B. (Interim Measures).
2. Upon receipt of the notification of any newly identified SWMU, the DNREC will determine the need for corrective action at such SWMU. If corrective action is necessary to protect human health or the environment considering site-specific risk and other site-specific factors, the DNREC will determine whether a RCRA Facility Investigation will be performed and the need for and scope of any Interim Measures, and modify the Permit to include such requirements pursuant to DRGHW § 122.41.

3. Within the time specified in the approved RCRA Facility Investigation Plan, the Permittee shall submit the RCRA Facility Investigation Report fulfilling the requirements of Permit Conditions II.E.3 through II.E.5.
4. In lieu of a separate RCRA Facility Investigation, the Permittee may propose either to incorporate any newly identified SWMU into an ongoing RCRA Facility Investigation or to submit a proposal for the performance of corrective measures at such newly identified SWMU in accordance with the provisions of Permit Condition II.A. Any such proposal shall be submitted to the DNREC along with notification of the discovery of the SWMUs.

II.L. FINANCIAL ASSURANCE:

1. Initial Cost Estimate:

Assurances of financial responsibility for corrective action must be provided in accordance with conditions herein. Within ninety (90) calendar days of receipt of the Department's written approval of the Corrective Measures Remedy, the Permittee shall submit an initial cost estimate for completing the approved remedy(ies). The initial estimate may be based on the Corrective Measure Study, the approved remedy(ies), or any other available information.

2. Cost Estimate Updates:

The cost estimate for completing the approved remedy(ies) shall be updated pursuant to the development of more detailed information (e.g., Corrective Measure Design) and any modifications to the approved remedy(ies).

3. Financial Assurance Demonstration:

Within thirty (30) calendar days of approval of the initial cost estimate for financial assurance (see Permit Condition II.L.1.), the Permittee shall demonstrate compliance with financial assurance to the DNREC for completing the approved remedies in accordance with 40 C.F.R. § 264.101(b). Within thirty (30) calendar days of approval of any revised cost estimate (see Permit Condition II.L.2.), the Permittee shall demonstrate to the DNREC financial assurance for the updated cost estimates.

4. Per the DRGHW, the DSPC is a government entity and is therefore exempt from the Financial Assurance Requirements.

II.M. RECORDKEEPING:

Upon completion of closure of any SWMU, the Permittee shall maintain in the facility operating record, documentation of the closure measures taken.

II.N. ACCESS FOR CORRECTIVE ACTION OVERSIGHT:

The DNREC and its authorized representatives shall have access to the facility at all reasonable times for the purpose of monitoring compliance with the provisions of this Permit. The Permittee shall use its best efforts to obtain access to property beyond the boundaries of the facility at which corrective action is required by this Permit (see § 3004(v) of RCRA, 42 U.S.C. § 6924(v) and §

264.101(c) of the DRGHW); (1) for itself and any contractor of the Permittee for the purpose of taking corrective action required by this Permit, and (2) for DNREC and its authorized representatives for the purposes described in this paragraph.

II.O. COMPLETION OF REMEDY:

Within ten (10) days of receipt of notification by the DNREC that the remedy is complete, the Permittee shall submit a written certification to the DNREC registered mail stating that the remedy has been completed in accordance with the requirements of this Permit Modification. The certification must be signed by the Permittee and by an independent registered Professional Engineer registered in the State of Delaware.

II.P. EXTENSION OF DEADLINES:

Extensions of the due date for any submittal under this Permit may be granted by DNREC without a permit modification, based on the Permittee's demonstration that sufficient justification for the extension exists. Unless exigent circumstances are determined by DNREC to exist, all requests for an extension shall be submitted in writing no less than two weeks before the applicable deadline, and no extension shall be effective until DNREC approves the request in writing.

MODULE III

POST-CLOSURE CARE

III.A. MODULE HIGHLIGHTS:

See “Introduction” of the approved Final Post-Closure Care Plan (see Attachment 1).

III.B. UNIT IDENTIFICATION:

The Permittee shall provide post-closure care for the four (4) surface impoundments (i.e. Ponds A, B, C and D), subject to the terms and conditions of this Permit, and as described in the approved Final Post-Closure Care Plan (see Attachment 1).

III.C. POST-CLOSURE PROCEDURES AND USE OF PROPERTY:

1. The Permittee shall conduct post-closure care for the four (4) surface impoundments listed in Permit Condition III.B. above, to begin after completion of closure and continue for thirty (30) years after that date, except that the thirty (30) year post-closure care period may be shortened upon application and demonstration approved by DNREC that the facility is secure, or may be extended by DNREC if the Secretary finds this is necessary to protect human health and the environment.
2. No later than September 23, 2029, if the landfill is still in the post-closure period at that time, the permittee shall evaluate the waste containment systems and monitoring data and provide a recommendation for continuing, amending, or discontinuing post-closure care of the landfill.
3. The Permittee shall maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of DRGHW § 264 Subpart F during the post-closure period.
4. The Permittee shall conduct groundwater monitoring in accordance with the approved Final Post-Closure Care Plan (see Attachment 1).
5. The Permittee shall comply with the requirements for landfills as follows:
 - a. The Permittee shall continue all maintenance activities as described in the approved Final Post-Closure Care Plan;
 - b. Maintain the final cover over the four (4) surface impoundments as per DRGHW § 264.118, and the approved Final Post-Closure Care Plan;
 - c. Maintain the run-on and run-off control systems required under DRGHW §§ 264.301(g), 264.301(h), and 264.310, and the approved Final Post-Closure Care Plan;
 - d. Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of the DRGHW § 264, Subpart F;
 - e. Prevent run-on and run-off from eroding or otherwise damaging the units; and

- f. Protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of DRGHW § 264.309.
6. The Permittee shall maintain monitoring systems as required by the DRGHW § 264.118 and the approved Final Post-Closure Care Plan (see Attachment 1), as follows:
 - a. Monitoring well replacement; and
 - b. Other equipment.
7. The Permittee shall comply with all security requirements, as per the DRGHW §§ 264.14, 264.117, and 264.118, and the approved Final Post-Closure Care Plan (see Attachment 1).
8. As per the DRGHW § 264.117(c), the Permittee shall not allow any use of the four (4) surface impoundments which will disturb the integrity of any components of the containment system, or the function of the facility's monitoring system during the post-closure care period.
9. As per the DRGHW §§ 264.117 and 264.118, the Permittee shall adhere to the approved Final Post-Closure Care Plan (see Attachment 1). All post-closure care activities must be conducted in accordance with the provisions of this Final Post-Closure Care Plan.

III.D. INSPECTIONS:

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the DRGHW § 264.117 and the approved Final Post-Closure Care Plan (see Attachment 1).

III.E. NOTICES AND CERTIFICATION:

1. The Permittee has submitted to the local zoning authority, or the authority with jurisdiction over local land use, and to the Secretary a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 1981, the Permittee has identified the type, location, and quantity of the hazardous wastes to the best of this knowledge and in accordance with any records he/she has kept.
2. The Permittee has within sixty (60) days of certification of closure of the first and last hazardous waste disposal unit:
 - a. Recorded in accordance with 7 Del. C., Chapter 63, notation on the deed to the facility property or on some other instrument that is normally examined during the title search that will in perpetuity notify any potential purchaser of the property that:
 - (1) The land has been used to manage hazardous waste;
 - (2) Its use is restricted under the DRGHW § 264 Subpart G; and
 - (3) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility have been filed with the Secretary and the New Castle County Planning Office.

- b. Submitted a certification to the Secretary, signed by the Permittee, that he has recorded the notation specified in Permit Condition III.E.2.a, including a copy of the document in which the notation has been placed.
3. If the Permittee or any subsequent owner or operator of the land upon which the hazardous waste disposal unit is located, wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, than he/she shall request a modification to this Permit in accordance with the applicable requirements in DRGHW §§ 122 and 124. The Permittee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of DRGHW § 264.117(c), which consists of the following:
 - a. The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or
 - b. The addition of a notation to the deed of instrument indicating the removal of the hazardous waste.
4. No later than sixty (60) days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall submit to the Secretary, by registered mail, a certification that the post-closure care for the hazardous waste disposal unit was performed in accordance with the specifications in the approved Final Post-Closure Care Plan. The certification must be signed by the Permittee and an independent Professional Engineer registered in the State of Delaware. Documentation supporting the engineer's certification must be furnished to the Secretary upon request until the Secretary releases the Permittee from the financial assurance requirements for post-closure care under DRGHW § 264.145.

III.F. FINANCIAL ASSURANCE:

1. The Permittee shall maintain financial assurance during the post-closure period and comply with all applicable requirements of DRGHW § 264 Subpart H, §§ 264.144 and 264.145. Changes in financial assurance mechanisms must be approved by the Secretary pursuant to the DRGHW § 264.145.
2. The Permittee shall demonstrate continuous compliance with the requirements of DRGHW § 264.147(a) to have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence, with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

The Permittee shall also demonstrate continuous compliance with the requirements of DRGHW § 264.147(b) to have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least \$3 million per occurrence, with an annual aggregate of at least \$6 million, exclusive of legal defense costs.

3. Per the DRGHW, the DSPC is a government entity and is therefore exempt from the Financial Assurance Requirements.

III.G. POST-CLOSURE PERMIT MODIFICATIONS:

In accordance with the DRGHW § 264.118, the Permittee must request a permit modification to authorize a change to the approved Final Post-Closure Care Plan. This request must be in accordance with the applicable requirements of DRGHW §§ 122 and 124, and must include a copy of the proposed amended Post-Closure Care Plan for approval by the Secretary. The Permittee shall request a permit modification whenever changes in operating plans or facility design affect the approved Final Post-Closure Care Plan, there is a change in the expected year of final closure, or other events occur during the active life of the facility that affect the approved Final Post-Closure Care Plan. The Permittee must submit a written request for permit modification at least sixty (60) days prior to the proposed change in facility design or operation, or no later than sixty (60) days after an unexpected event has occurred which has affected the Final Post-Closure Care Plan.

MODULE IV

GROUNDWATER DETECTION MONITORING

IV.A. DETECTION MONITORING NETWORK:

1. The detection monitoring system for the four (4) surface impoundments (i.e. Ponds A, B, C and D) shall yield groundwater samples from the uppermost aquifer that represent the quality of groundwater. The Permittee shall document compliance with this provision and place this documentation in the operating record.
2. The detection monitoring system for the four (4) surface impoundments shall consist of the monitoring wells described in the approved Final Post-Closure Care Plan (see Attachment 1).
3. The term, “uppermost aquifer”, as referenced in this Module, refers to the first saturated sand horizon that is continuous beneath the four (4) surface impoundments.

IV.B. MONITORING WELL DESIGN, CONSTRUCTION, MAINTENANCE, AND CERTIFICATION REQUIREMENTS:

1. The Permittee shall construct and maintain wells monitoring the groundwater for the period specified in DRGHW § 264.96. Groundwater monitoring shall, at a minimum, consist of a detection monitoring system for the uppermost aquifer.
2. Maintenance of these wells, and any future design and construction considerations, shall be performed in accordance with the November 1992 EPA document entitled, “RCRA Ground-Water Monitoring: Draft Technical Guidance”.
3. The Permittee shall complete construction of any new monitoring wells in accordance with the requirements of this Permit and shall certify such proper construction in accordance with any applicable rules, except that the certification shall be prepared by a qualified Hydrologist, Geologist, or Geotechnical Engineer. Each monitoring well certification report shall be an accurate log of the soil boring which thoroughly describes and depicts the location, latitude and longitude, material setting elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. In addition, location determinations (including latitude and longitude, top of casing elevation, ground surface elevation at well location) of all new monitoring wells shall be performed by a Surveyor licensed in the State of Delaware.
4. Well numbers (i.e. DNREC I.D. Number; Local I.D. Number) shall be permanently marked on each well at the site. These wells shall be raised to the new grade of completed site construction and adequately protected given the site’s reuse.
5. Maintenance of all monitoring wells shall be performed in accordance with the approved Final Post-Closure Care Plan (see Attachment 1).
6. Well integrity inspections for all wells comprising the detection monitoring system shall be performed as specified in the approved Final Post-Closure Care Plan (see Attachment 1).
7. The Permittee shall replace any monitoring well that is removed from service with a new monitoring well. The replacement well shall be installed in accordance with the requirements

of this Permit. The Permittee shall notify the Secretary in writing of any damaged well within ten (10) days of such discovery, and replace such well prior to the next routine sampling event after written approval from the Secretary to replace the well removed from service.

8. All damaged monitoring wells removed from service shall be decommissioned in accordance with the *Delaware Regulations Governing Decommissioning of Water Wells*.

IV.C. MONITORING CONSTITUENTS:

1. The Permittee shall monitor for parameters and constituents listed in the approved Final Post-Closure Care Plan (see Attachment 1). Reassessment of the appropriateness of this list will be made as specified in the Final Post-Closure Care Plan (see Attachment 1).
2. The Permittee shall establish background water quality for each monitoring constituent and parameter based on data from groundwater wells of the four (4) surface impoundments. Background values for each constituent and parameter shall be re-determined following each sampling event by averaging values obtained from the latest four (4) consecutive rounds of sampling, unless such methodology adversely affects implementation of an appropriate statistical test, pursuant to Permit Condition IV.F.8.

IV.D. ELEVATION OF THE GROUNDWATER SURFACE:

1. The Permittee shall determine groundwater elevations in monitoring wells at the four (4) surface impoundments prior to each routine and non-routine sampling event. The Permittee shall determine all groundwater surface elevations during a single day, using the Electrical Tape Method or other method approved by the Secretary.
2. Annually, the Permittee shall determine groundwater flow rate and direction in the uppermost aquifer, and develop a contour map from the groundwater elevation data. This annual determination shall be based on groundwater elevations in all wells constructed at and near the four (4) surface impoundments, including wells not in the detection monitoring system.

IV.E. SAMPLING AND ANALYSIS PROCEDURES:

1. Samples shall be collected using the techniques described in the approved Final Post-Closure Care Plan (see Attachment 1).
2. Samples shall be preserved and shipped to offsite laboratories in accordance with the procedures specified in the approved Final Post-Closure Care Plan (see Attachment 1).
3. Samples shall be analyzed in accordance with the procedures specified in the approved Final Post-Closure Care Plan (see Attachment 1).
4. Samples shall be tracked and controlled using the chain-of-custody procedures specified in the approved Final Post-Closure Care Plan (see Attachment 1).

IV.F. MONITORING PROGRAM AND DATA EVALUATION:

1. The Permittee shall determine groundwater quality at each monitoring well using sampling and analysis techniques specified in the approved Final Post-Closure Care Plan (see Attachment 1).
2. The Permittee shall sample each monitoring well for parameters and constituents specified in the approved Final Post-Closure Care Plan (see Attachment 1). In addition to these parameters and constituents, the Permittee shall perform field parameter measurements (pH, specific conductance, temperature, and turbidity) and depth-to-well-bottom measurements for each monitoring well.
3. The Permittee shall sample the detection monitoring system at the frequency specified in the approved Final Post-Closure Care Plan.
4. The Permittee shall determine the groundwater flow rate and direction in the uppermost aquifer at least annually, as described in Permit Condition IV.D.2.
5. The Permittee shall determine whether there is an increase over the background values for each parameter and constituent identified in the approved Final Post-Closure Care Plan (see Attachment 1). In determining whether such an increase has occurred, the Permittee shall perform the following procedures:
 - a. The Permittee shall individually compare values for the monitoring parameters and constituents at each monitoring well against the screening levels described in the approved Final Post-Closure Care Plan (see Attachment 1). The results of the analysis shall be submitted within thirty (30) calendar days of receiving the complete results of the scheduled sampling event. If re-sampling is performed, then the results of the analysis for the parameter(s) in question shall be submitted with thirty (30) calendar days of receiving the re-sampling results.
6. If the analysis indicates that there is significant evidence of contamination for a monitoring parameter or constituent in any point of compliance well, then the Permittee shall follow the procedures set forth in the DRGHW § 264.98(g)(6).
7. If the Permittee determines that the detection monitoring program required by this Permit no longer satisfies the requirements of DRGHW § 264.98, the Permittee shall, within ninety (90) days of such determination, submit an application for a permit modification to make any appropriate changes to the program.
8. If the controls built into the prediction limit test or other statistical method(s) can demonstrate that the most recent data for any parameter are sufficiently auto-correlated, seasonal, or subject to any other deviation from assumptions that renders the statistical test inappropriate, the Permittee must apply an alternate test that complies with the performance standards set forth in DRGHW § 264.97. The Permittee shall document and justify any changes to the statistical method in the Annual Monitoring Report required by Permit Condition IV.G.
9. Within ninety (90) days after determining that the methods described in the approved Final Post-Closure Care Plan are not appropriate for any monitoring parameter, the

Permittee shall submit an application for a permit modification, proposing alternative procedures meeting the applicable requirements of DRGHW § 264.97.

IV.G. RECORDKEEPING AND REPORTING:

1. All field, sampling, and laboratory analytical data shall be documented and reported as specified in the approved Final Post-Closure Care Plan (see Attachment 1).
2. The Permittee shall submit an Annual Groundwater Monitoring Report within sixty (60) days of receipt of analytical data after each sampling event. The Annual Groundwater Monitoring Report shall include, at a minimum:
 - a. Tables, along with discussion, summarizing the concentrations of the monitoring parameters and constituents in the background and point of compliance wells, and in the QA/QC blanks;
 - b. Graphical plots for each parameter and constituent at each point of compliance well and each background well, showing every sample value since installation of the detection monitoring system, or during the previous three (3) years (three sampling events when the fourth round of post-closure is completed); or a statement asserting that the parameter or constituent was detected at most, once, during the past three (3) years, and giving the maximum value and detection limit(s) achieved;
 - c. Tables, along with discussion, summarizing the results of the screening levels used to evaluate each parameter and constituent;
 - d. A table summarizing field parameter measurements (pH, specific conductance, temperature, and turbidity), groundwater surface elevations, and depth-to-well bottom measurements; and
 - e. Maps showing well locations, water level elevations, inferred groundwater flow directions and flow rates for the aquifer, and, if present, contaminant plume(s).
3. The Permittee shall comply with any additional reporting requirements as they become necessary under conditions set forth elsewhere in this Module.
4. The Permittee shall retain all information not required for formal submittal to the Secretary in the four (4) surface impoundments operating record, and such information shall be available for review by the Secretary.

HW31B04 PERMIT SYNOPSIS: