

State Permit Number: DM 2601-MD-03

Effective Date: April 01, 2026

Expiration Date: March 31, 2031



AUTHORIZATION TO CONDUCT  
A LIMITED DISTRIBUTION AND MARKETING PROGRAM  
FOR THE UTILIZATION OF SLUDGE OR SLUDGE PRODUCTS

**Pursuant to the provisions of 7 Del. C., §6003**

Town of Ocean City Wastewater Department ("Permittee")  
6405 Sea Bay Drive  
Ocean City, Maryland 21842

is hereby granted authorization to conduct a limited distribution and marketing program for the utilization of pasteurized sludge product generated at the Town of Ocean City Maryland Wastewater Treatment Facility.

1. The general requirements, monitoring requirements and other permit conditions are set forth in Parts I, II and III hereof.

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Gordon Woodrow, Program Manager  
Commercial and Government Services  
Division of Water  
Department of Natural Resources  
and Environmental Control

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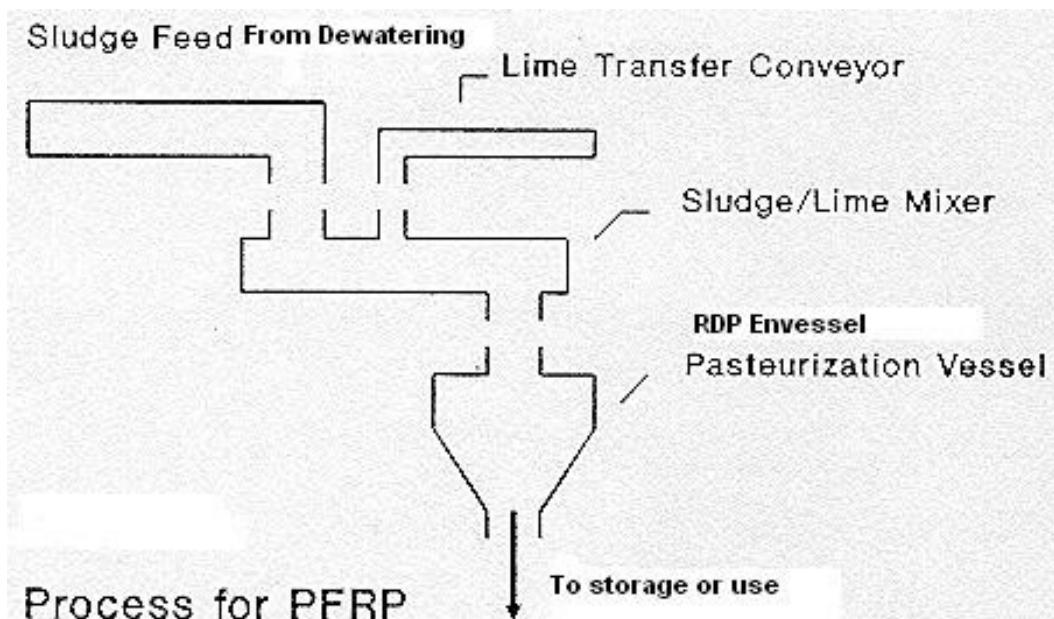
Date Signed

## Part I

### A. GENERAL DESCRIPTION OF OPERATION

This operation involves sewage sludge stabilization by pasteurizing sewage sludge to an exceptional quality "EQ" biosolids rating creating a final product known as Shore Gro biosolids fertilizer product. Shore Gro is a treated byproduct of the wastewater reclamation process from the Town of Ocean City Maryland wastewater treatment facility. The facility services the Town of Ocean City Maryland and treats approximately 14 million gallons of wastewater per day (MGD).

The production of Shore Gro fertilizer has several steps. Liquid treatment facilities consist of preliminary treatment including screening and grit removal, primary sedimentation and secondary treatment using a high purity oxygen activated sludge process. Solids handling processes include removal of sludge from wastewater in primary and secondary clarifiers. Primary sludge is gravity thickened and secondary sludge is thickened by a dissolved air flotation equipment and then further thickened to by centrifuges. The sludge is then mixed with lime and processed in a RDP EnVessel pasteurization vessel. The sludge is heated to temperatures at or in excess of 70° C (158° Fahrenheit (F)) for a minimum of 30 minutes. Lime stabilization is complete when the final product reaches and maintains a pH a pH of 12 S.U. for a minimum of 2 hours and sustains a pH of 11.5 or higher for an additional 22 hours). The resultant Class A Exceptional Quality (EQ) sludge product, marketed as "Shore Gro" biosolids fertilizer product, is commercially distributed to persons involved in soil amendment for agricultural, horticultural, silvicultural or other approved soil reclamation activities where a fertilizer product may be required. The product is distributed through the state of Maryland and may also be distributed in accordance with the requirements of this permit throughout the State of Delaware. Any off-spec sludge generated is hauled to a landfill for disposal.



**B. REGULATORY AND SUPPORTING DOCUMENTS:**

The limited distribution and marketing program shall be conducted in accordance with the following documents:

1. The Department's Guidance and Regulations Governing the Land Treatment of Wastes, Part III, (B), (revised October, 1999);
2. Title 40 of the Code of Federal Regulations Part 503, "Standards for the Use and Disposal of Sewage Sludge";
3. Biosolids Treatment Facilities Operations & Maintenance Manual dated March, 2010;
4. The State of Maryland Sewage Sludge Utilization Permit (currently administratively extended), issued October 24, 2008 with an expiration date of October 23, 2013 (as amended);
5. The Town of Ocean City, Maryland "Shore Gro" biosolids fertilizer product label dated November 14, 2016 (as amended); and,
6. The application for renewal of DM 2004-MD-03 dated April 30, 2025.

## C. PROGRAM LIMITATIONS

1. During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to conduct a Limited Distribution and Marketing Program for pasteurized sludge product generated at the Ocean City Wastewater Treatment Facility in Ocean City, Worcester County, Maryland.
2. Only pasteurized sludge product, known as "Ocean City Biosolids Soil Amendment Product", which satisfies the Class A Process to Further Reduce Pathogens (PFRP) requirements, vector attraction reduction requirements, and the Pollutant Concentrations limits from Section 116.2, Table 4.02.3 of Part III, (B), of the Guidance and Regulation Governing the Land Treatment of Wastes, may be distributed under this permit.
3. In order to satisfy the minimum requirements for Class A conditions, the lime-amended sludge must be maintained at operating temperatures of 70° C (158°F) or greater for a minimum of thirty (30) minutes and at a pH of 12 S.U. for a minimum of 2 hours and sustain a pH of 11.5 or higher for an additional 22 hours. If any portion of the processed sludge fails to meet these requirements, the effected portion of the product shall be re-processed prior to distribution.
4. The pasteurized sludge product shall be deemed to be off-spec if it fails to meet Class A conditions, vector attraction reduction requirements, or any of the following Pollutant Concentrations limits, from Section 116.2, Table 402.3 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes, Part III, (B), are exceeded on a dry weight basis:
5. Metals and Pathogen Limits:
  - a. The sludge product shall be deemed off-spec if the following pollutant concentrations are exceeded on a dry weight basis:

Arsenic	41 mg/kg	Cadmium	39 mg/kg	Chromium	1200 mg/kg	Copper	1500 mg/kg
Lead	300 mg/kg	Mercury	17 mg/kg	Molybdenum	18 mg/kg	Nickel	420 mg/kg
PCBs	10 mg/kg	Selenium	36 mg/kg	Zinc	2800 mg/kg	-	-
Fecal Coliform 1000 colonies/gm (MPN)				Salmonella Density (sp) 3/4gm (MPN)			

6. Utilization of off-spec pasteurized sludge product must receive separate authorization from the Department prior to distribution or disposal if not re-processed.
7. Based upon a review of the data submitted the Department may require the permittee to make changes in the product literature, may limit the allowable end uses, or may otherwise modify or revoke this permit.
8. Copies of the product label, as submitted to the Department in the permit application or as subsequently approved by the Department, shall be

distributed to each end-user.

9. The permittee shall not knowingly allow any customer to use the EQ biosolids product in any manner which is inconsistent with the product label.
10. No EQ biosolids product may be stored or applied in a way that causes surface or groundwater pollution, run-on/runoff, cause odor, adversely affect the food chain, attract vectors, or adversely affect private or public water supplies.
11. Pasteurized sludge product generated at the Ocean City Wastewater Treatment Facility shall not be applied to land where root vegetables or vegetables which are eaten raw are grown or will be grown within twenty-four (24) months.
12. Pasteurized sludge product may only be distributed as a liming material to raise soil pH for agricultural or horticultural purposes and for use as a soil amendment on athletic fields, golf courses, roadside grass strips, and other similar grassy areas.
13. Additional end uses of Shore Gro biosolids may be approved by the Department following Departmental approval of use-specific product literature.
14. The permittee shall require the use of tarps or otherwise assure that all vehicles transporting pasteurized sludge products from the facility are properly sealed to retain the pasteurized sludge product in the vehicle during transportation.

## D. MONITORING REQUIREMENTS

During the period beginning on the effective date and lasting through the expiration date the permittee is authorized to conduct a Distribution and Marketing program for the pasteurized sludge product generated at the Ocean City Wastewater Treatment Facility. Pasteurized sludge product for distribution and marketing shall be monitored by the permittee as specified below:

### 1. PASTEURIZED SLUDGE

Parameter	Unit Measurement	Minimum Frequency	Sample Type
Moisture content	percent	Monthly	Composite
Total Nitrogen as N (dry weight basis)	percent	Monthly	Composite
Organic Nitrogen as N (dry weight basis)	percent	Monthly	Composite
Ammonium as N (dry weight basis)	percent	Monthly	Composite
Nitrate Nitrogen as N (dry weight basis)	percent	Monthly	Composite
Phosphorus as P (dry weight basis)	percent	Monthly	Composite
Potassium as P (dry weight basis)	percent	Monthly	Composite
Volatile solids	percent	Monthly	Composite
Calcium Carbonate Equivalence	percent	Monthly	Composite
Fecal Coliform (Colonies/gm)	MPN	Monthly	Composite
pH	S.U.	Monthly	Composite
Arsenic (dry weight basis)	mg/kg	Monthly	Composite
Cadmium (dry weight basis)	mg/kg	Monthly	Composite
Chromium (dry weight basis)	mg/kg	Monthly	Composite
Copper (dry weight basis)	mg/kg	Monthly	Composite
Iron (dry weight basis)	mg/kg	Monthly	Composite
Lead (dry weight basis)	mg/kg	Monthly	Composite
Mercury (dry weight basis)	mg/kg	Monthly	Composite
Molybdenum (dry weight basis)	mg/kg	Monthly	Composite
Nickel (dry weight basis)	mg/kg	Monthly	Composite
Selenium (dry weight basis)	mg/kg	Monthly	Composite
Sodium (dry weight basis)	mg/kg	Monthly	Composite
Zinc (dry weight basis)	mg/kg	Monthly	Composite
PCBs (dry weight basis)	mg/kg	Monthly	Composite
PFAS (dry weight basis)	ug/kg	Quarterly	Composite
Priority pollutant scan (see NOTE)	---	Every 3 years	Composite

Pasteurized sludge samples shall be collected at the following location: the dryer discharge chute.

All processed sludge shall be collected and analyzed in accordance with USEPA analytical guidelines and with the Quality Assurance Program.

The Priority Pollutant List can be found at: <https://www.epa.gov/sites/default/files/2015-09/documents/priority-pollutant-list-epa.pdf>

See Part I, H.1. for reporting requirements. The Department may modify the sampling frequency based upon review of continuing or additional analyses.

## 2. SLUDGE PRODUCT STABILIZATION AND PASTEURIZATION PROCESS MONITORING

<u>Parameter</u>	<u>Unit Measurement</u>	<u>Minimum Sampling Frequency</u>	<u>Sample Type</u>
Temperature	Degrees Fahrenheit	Initially and thirty (30) minutes thereafter	Grab
pH	S.U.	Initially, two (2) hours and 24 hours	Grab

NOTE: Temperature and pH monitoring results shall be recorded in an appropriate bound log book and additionally maintained as an electronic data sheet submitted as part of a Quality Control Program. See Part I, F.2 for reporting requirements.

## E. SCHEDULE OF COMPLIANCE

Beginning no later than ninety (90) days after the issuance date of this permit, biosolids distributed to the State of Delaware shall be sampled for PFAS compounds using EPA method 1633 or 1633A on a quarterly basis. Additional laboratory methods for PFAS sampling may be approved by the Department in writing.

## F. BONDING

Not required pursuant to Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes.

## G. MONITORING

### 1. Representative Sampling and Measurements

- a. Samples and measurements taken as required herein shall be representative of the volume and nature of the sludge product to be distributed and marketed.
- b. All biosolids must be analyzed for the parameters identified in Part I, D.1 and D.2 of this permit, as applicable, prior to distribution.

### 2. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling and/or measurement;
- b. The person(s) who performed the sampling and/or measurement (if applicable);
- c. The dates of and the analyses that were performed and the time the analyses were begun;

- d. The person(s) who performed the analyses (if applicable);
- e. The results of each analysis, along with the original laboratory report; and,
- f. The analytical methods employed;

3. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for five (5) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

## **H. REPORTING**

1. Monthly Report
  - a. Sludge product analytical and stabilization process monitoring data obtained during the previous one (1) month shall be summarized for each month and submitted no later than the 28th day of the month following the completed reporting period. Signed copies of these, and all other reports required herein, shall be electronically submitted to the Department to biosolids\_de@delaware.gov. If more than one sample is analyzed during any month, a table showing the range of constituent concentration values shall be prepared and included with the submittal. Monthly reports may be submitted electronically or in any format specified by the Department.
  - b. Temperature monitoring of the sludge product as required in Part I, D.2 of this permit, shall be summarized in the monthly report. Should off-spec Shore Gro be produced during a reporting period, documentation shall be submitted as part of the monthly report indicating that all sludge during the reporting period that is distributed to Delaware will be EQ quality.
2. Annual Report

The permittee shall submit to the Department an annual report to include for all sludge products distributed from the District to Delaware during the previous year. The annual report may be submitted electronically or in any format specified by the Department. The annual report shall be due on February 1 of each year, and the information contained in the report shall cover the previous calendar year.

### 3. Test Procedures

Test procedures for laboratory analyses shall conform to the applicable test procedures identified in Section 152 of Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes, Title 40, Code of Federal Regulations, Part 503, Subsection 503.8 and to the applicable test procedures identified in the Quality Control Program. In addition, PFAS monitoring shall be conducted using EPA method 1633 or 1633A. Additional laboratory methods for PFAS sampling may be approved by the Department in writing.

## I. DEFINITIONS

1. "Class A" means sludge that has undergone a process to further reduce pathogens (PFRP) in Part III, B. of the Department's Guidance and Regulations Governing the Land Treatment of Wastes.
2. "Composite" means a series of grab samples which have been collected in a manner such that the final sample is representative of the volume and characteristics of the sludge to be distributed.
3. "Distribute" means to barter, sell, offer for sale, consign, furnish, provide, or otherwise supply a material as part of a commercial enterprise or giveaway program.
4. "Exceptional Quality Biosolids" ("EQ Biosolids") sludge that has been stabilized by a process to further reduce pathogens (PRFP), meets Vector Attraction Reduction Requirements, and contains lower metal concentrations than the allowable Pollutant Concentration levels.
5. "Food chain crops" means tobacco, crops grown for human consumption, and crops grown to feed animals whose products are consumed by humans.
6. "Handling" means any way in which sludge, treated sludge, or any other product containing these materials is dealt with, other than collection, burning, storage, treatment, land application, disposal, or transportation. It includes distribution of treated sludge.
7. "Heat dried sludge product" means sludge which has undergone processing to meet Class A standards that is verified by testing and/or monitoring.
8. "Label" means the display of all written, printed, or graphic material on the immediate container, or information accompanying the material.
9. "Landfill" means a natural topographic depression, man-made excavation or diked area formed primarily of earthen materials, which has been lined with man-made materials or remains unlined and which is designed to

hold an accumulation of solid wastes.

10. "Person" means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.
11. "Sewage" means water-carried human or animal wastes from septic tanks, water closets, residences, buildings, industrial establishments, or other places, together with such groundwater infiltration, subsurface water, admixture of industrial wastes or other wastes as may be present.
12. "Sewage sludge" means sludge which derives in whole or in part from sewage.
13. "Sludge" means the accumulated semi-liquid suspension, settled solids, or dried residue of these solids that is deposited from (a) liquid waste in a municipal or industrial wastewater treatment plant, (b) surface or ground waters treated in a water treatment plant, whether or not these solids have undergone treatment. Septage is included herein as sludge.
14. "Solid waste" means any garbage, refuse, rubbish, and other discarded materials resulting from industrial, commercial, mining, agricultural operations and from community activities which does not contain free liquids. Containers holding free liquids shall be considered solid waste when the container is designed to hold free liquids for use other than storage (e.g. radiators, batteries, transformers) or the waste is household waste.
15. "Storage" means the interim containment of sludge, treated sludge, or any other product containing these materials after removal from the wastewater and before disposal or utilization.
16. "Treatment" means a process which alters, modifies or changes the biological, physical, or chemical characteristics of sludge or liquid waste.
17. "Vector Attraction Reduction (VAR)" means sludge that undergone of one of the requirements for VAR in Part III, B. of the Department's Guidance and Regulations Governing the Land Treatment of Wastes.

## Part II

### A. MANAGEMENT REQUIREMENTS

#### 1. Noncompliance Notification

The permittee shall report to the Department:

- a. In writing thirty (30) days before any planned change to the sludge treatment process or the limited distribution and marketing program, if that change would result in any alterations to the program as represented in the permit application.
- b. In writing thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes or 40 CFR, Part 503, Standards for the Use and Disposal of Sewage Sludge.
- c. Orally within twenty-four (24) hours from the time the permittee became aware of any spill, upset, or noncompliance which may endanger the public health or the environment, at (800) 662-8802. In addition, a call must be placed at (302) 739-9946 during normal business, and;
- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any noncompliance unless extended by the Department. This report shall contain:
  - 1) A description of the noncompliance and its cause.
  - 2) The period of noncompliance including to the extent possible, times and dates and, if the noncompliance has not been corrected, the anticipated time it is expected to continue.
  - 3) Steps taken or planned to reduce or eliminate reoccurrence of the noncompliance.
- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Department. Those facts and the correct information shall be included as a part of this report.

#### 2. Minimize Impacts

The permittee shall take all necessary actions to eliminate and correct any adverse impact on the public health or the environment resulting from permit noncompliance.

## B. RESPONSIBILITIES

### 1. Renewal Responsibilities

At least 180 days before the expiration date of this permit, the permittee shall submit a new application for a permit or notify the Department of the intent to cease operation of the distribution and marketing program by the expiration date. In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

### 2. Entry and Access

The permittee shall allow the Department, consistent with 7 Del. C., Chapter 60, to:

- a. Enter the permitted facility.
- b. Inspect any records that must be kept under this permit.
- c. Inspect any facility, equipment, practice, or operation permitted or required by this permit.
- d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility or land application site.

### 3. Provide Information

The permittee shall furnish to the Department within a reasonable time, any information requested, including copies of records, which may be used by the Department to determine whether cause exists for modifying, revoking, reissuing, or terminating the permit, or to determine compliance with the permit or the Guidance and Regulations Governing the Land Treatment of Wastes.

### 4. Transfer of Ownership or Control

This permit shall be transferable to a new owner or operator provided that the permittee notifies the Department by requesting a minor modification of the permit before the date of transfer and provided that the transferee shows evidence of a legal right to use the site and is otherwise in

compliance with all applicable provisions of Part III, (B) of the Department's Guidance and Regulations Governing the Land Treatment of Wastes.

## 5. Operation of Facility

The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, control and monitoring, which are installed or used by the permittee to achieve compliance with 7 Del. C., Chapter 60, this permit, or Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes.

## 6. Permit Revocation and Modification

- a. After notice and opportunity for a hearing, this permit may be modified or revoked in whole or in part during its term for causing including, but not limited to, the following:
  - 1) Violation of any terms or conditions of this permit or fails to pay applicable Department fees;
  - 2) Obtaining this permit by misrepresentation or failure to disclose fully all of the relevant facts;
  - 3) Any change in operating conditions that requires either a temporary or permanent permit modification; or
  - 4) If the Department finds that the public health, safety or welfare requires action, the Department shall incorporate findings in support of such action in a written notice of revocation issued to the permittee. Revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, the Department shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with 7 Del. C., Chapter 60.
- b. The Department may revoke this permit if the permittee violates any permit condition, any provisions of Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes, or fails to pay applicable Department fees.

## 7. State Laws

Nothing in this permit shall be construed to preclude the institution of any  
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legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

8. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

9. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application or any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Compliance Required

The permittee shall comply with all conditions of the permit.

11. Reopener

In the event that the Part III, B, of the Guidance and Regulations Governing the Land Treatment of Wastes or applicable Federal Regulations are revised, this permit may be reopened and modified accordingly after notice and opportunity for a public hearing.

## PART III

### A. SPECIAL CONDITIONS

1. The effective period of Delaware State Permit No. DM 2601-MD-03 is conditioned on the successful continuance of Maryland State Sewage Sludge Permit No. 2009-STF-4830 (as amended). Failure to maintain the Maryland permit will result in inactivation of Delaware State Permit No. DM 2004-MD-03 until the Department investigates the action taken by the Maryland Department of the Environment (MDE) on Permit No. 2009-STF-4830. Loss of the MDE permit may void Delaware State Permit No. DM 2004-MD-03.
2. The Facility must comply with the Federal Code of Regulations, Title 40, Part 503, "Standards for the Use and Disposal of Sewage Sludge" in the production, distribution and management of the pasteurized sludge products.
3. For any person who may utilize more than 100 tons of residual product per year, a plan must be submitted to the Department which addresses the following:
  - a. The end use(s) of the material
  - b. Maximum application rates
  - c. Total amount of material to be utilized
  - d. Storage practices
  - e. Transportation methods
4. The permittee shall maintain a log of all persons that receive more than ten (10) cubic yards of material on an annual basis. At minimum this log shall include the name of the purchaser, the amount purchased, the date of the purchase, and the proposed end use. This log shall be maintained in accordance with Part I, G. 3 of this permit.
5. Supersedes Previous Permit

This permit supersedes all previous distribution and marketing permits issued to the Town of Ocean City, Maryland from the Delaware Department of Natural Resources and Environmental Control.