DELAWARE
COASTAL ZONE ACT
PERMIT

NUMBER: 419

ISSUED TO: Green Recovery Technologies, LLC

TO PERMIT: The construction and operation of a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets.

SITE LOCATION: 42 Lukens Drive, Riveredge Industrial Park, New Castle

Conditions Incorporated and Made Part of this Permit:

1. This permit is conditional upon the Permittee's compliance with all other applicable permit requirements, regulations and laws of the State of Delaware.

2. Issuance of this permit does not relieve the Permittee of the legal obligation of complying with all building permits, subdivision and other applicable code requirements of the county or municipality wherein the permitted project is located.

3. If there are significant deviations from the plan and operations approved by the Secretary, the Permittee shall notify the Secretary as soon as possible. This permit may be revoked and a new permit application required if the Secretary deems the deviation to substantially change the nature or scale of the project and to be of actual or probable harm to the purposes of the Coastal Zone Act.

Signature: _____ Date: 7/10/15

David S. Small, Secretary
Department of Natural Resources & Environmental Control

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
AND ENVIRONMENTAL CONTROL
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

OFFICE OF THE
SECRETARY

PHONE: (302) 739-9000
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Secretary's Order No. : 2015-CZ-0025

RE: **Application of Green Recovery Technologies, LLC, for a Coastal Zone Act Permit to construct and operate a facility that chemically separates high quality proteins and fats from poultry fines feedstock into high quality feed ingredients for animal nutrition markets, at 42 Lukens Drive in the Riveredge Industrial Park, New Castle, Delaware**

Date of Issuance: **July 10, 2015**

Effective Date: **July 10, 2015**

Under the authority vested in the Secretary of the Department of Natural Resources and Environmental Control ("Department" or "DNREC") pursuant to 7 *Del.C.* §§6001 *et seq.*, 7 *Del.C.* §§7001 *et seq.*, and the Department's Coastal Zone Act Regulations, the following findings of fact based on the record, reasons and conclusions are entered as an Order of the Secretary in the above-referenced Coastal Zone Act permitting proceeding.

Background, Procedural History and Findings of Fact

The applicant, Green Recovery Technologies, LLC ("Applicant", "GRT"), seeks a Coastal Zone Act ("CZA") Permit for production/manufacturing activities which will take place within the defined Coastal Zone of Delaware, specifically, for a new manufacturing activity, to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients

for animal nutrition markets. Poultry fines feedstock, consisting of approximately 58% lipids, 35% protein, and 7% moisture, are placed by a third party vendor (currently from out of state) into one ton, industrial-grade sealed plastic bins for truck transport to GRT at the estimated rate of two (2) trucks of feedstock per operations day. The operation will take place inside a 120,000-square foot building, located on a parcel of property that is 9.13 acres in size, at 42 Lukens Drive, Riveredge Industrial Park, New Castle, Delaware. GRT's process utilizes the liquefied gas dimethyl ether ("DME") as the solvent to separate the proteins and lipids, resulting in a high purity protein stream (free of oil) and a high purity lipid stream (free of protein). The DME solvent is run in a closed-loop with full solvent recovery and automatic gas monitoring. The process has an integrated automatic fire detection and containment system. The resultant high quality feed ingredients (proteins and lipids) will then be sold and shipped to manufacturers in animal nutrition markets.

The Department requires a CZA applicant to set forth in its application the proposed project's possible environmental impacts, including, but not limited to, any increased air emissions of pollutants, water quality/water quantity/water use, and the disposal of solid and hazardous wastes. Furthermore, any application for a CZA permit for an activity or facility that will result in any negative environmental impact shall contain an offset proposal, which will more than offset the proposed negative impacts of any proposed project.

In the present matter, GRT's proposed project will result in air emissions generated at the Applicant's facility by three units: (1) the fume hood; (2) the boiler; and (3) the dust collector. While the minimal amount of air emissions associated with both

the fume hood and the boiler units do not necessitate GRT to obtain an air permit from DNREC's Division of Air Quality ("DAQ"), the emissions generated by the dust collector unit will require an Air Quality Management ("AQM") permit under Department Regulation 1102, *Regulations Governing the Control of Air Pollution*, 7 DE Admin. Code §1102) Accordingly, the Applicant has submitted a separate application to DNREC's DAQ for an AQM permit to authorize the construction and operation of its aforementioned processing line, specifically, for the minor quantities of particulate matter and trace volatile organic compounds ("VOCs") that will exit the exhaust of the dust collector unit while the finished product is conveyed for shipment. The Department held a duly noticed public hearing regarding GRT's pending air permit application on June 17, 2015, the same date as the hearing for this CZA Permit, and a final decision with regard to that matter will be forthcoming in a separate Secretary's Order in the near future.

Continuing on with the possible environmental impacts of the Applicant's proposed project within Delaware's Coastal Zone, office solid waste will be generated, totaling approximately 5,625 pounds annually. No other environmental impacts are anticipated. The GRT payroll will consist of thirty (30) employees, twenty of which will be from Delaware and 10 from other states. The site is in an existing industrial park, and the planned project will be consistent with the current industrial park setting. There will be no new supporting facilities and/or services required to support the proposed project, and effects on neighboring uses will be minimal. Lastly, the proposed facility and operation is consistent with the New Castle County and City of New Castle comprehensive plans.

With respect to needed offset proposals obtained by the Applicant in this matter, GRT has obtained 7 NO_x credits (4 ozone Season and 3 non-ozone season) and 2 VOC credits (1 ozone Season and 1 VOC non-ozone season) from the Delaware Economic Development Office ("DEDO") as their air offset for the boiler, fume hood, and dust collector emissions noted above. Additionally, office paper and other office solid waste will be recycled in appropriate bins, collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone. Packaging waste will be reused and/or recycled by the manufacturer.

The Department provided public notices of this CZA Application submission and the determination of an administratively complete application following the Secretary's Assessment, which was signed on May 19, 2015. CZA Regulation 8.3.6 requires that the Secretary shall, within ninety (90) days of receipt of an administratively complete application, reply to the request for a CZA permit by "...either granting the permit, denying the permit, or granting the permit, but with special conditions. The Secretary shall state the reasons for his decision." In the present instance, the ninety (90) day deadline is August 17, 2015.

A duly noticed public hearing was held on June 17, 2015, at the DNREC offices located at 391 Lukens Drive, New Castle, Delaware. Public comments were received by the Department at all phases of this permitting matter, up through close of business on Thursday, July 2, 2015 (at which time the hearing record closed with regard to public comment), and the same were thoroughly addressed by the Division of Energy and Climate, as reflected in the hearing record generated in this matter. Subsequent to the

public hearing of June 17, 2015, the Department's presiding Hearing Officer, Lisa A. Vest, prepared a Hearing Officer's Report dated July 9, 2015 ("Report").

Reasons and Conclusions

Based on the record developed by the Department's experts and established by the Hearing Officer's Report, I find and conclude that the record developed in this matter supports approval of GRT's application for its CZA permit, as consistent with the intent of the CZA and its regulations, which is to balance the economic and environmental interests of the State of Delaware. Therefore, the recommendations of the Hearing Officer are hereby adopted, and I direct that the currently pending CZA Permit Application of Green Recovery Technologies, LLC, to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets, be ***granted.***

Accordingly, I direct that a Coastal Zone Act permit be issued to the Applicant, and that the following reasons and conclusions are entered:

1. The Department has jurisdiction under its statutory authority to issue a CZA Permit to the Applicant, subject to reasonable permit conditions deemed appropriate and consistent with the CZA's purposes;
2. The Department provided adequate and lawful public notice of the Coastal Zone Act Application of Green Recovery Technologies, LLC, and of the public hearing held on June 17, 2015, and held said hearing to consider any public comment that may be offered on the application, in a manner required by the law and regulations;

3. The permit applied for by GRT is for production/manufacturing activities which will take place within the defined Coastal Zone of Delaware, and is for a new manufacturing activity, the operation of which will take place inside a 120,000-square foot building, located on a parcel of property that is 9.13 acres in size, located at 42 Lukens Drive, Riveredge Industrial Park, New Castle, Delaware, within the Coastal Zone of Delaware, which requires a CZA permit for the same, to wit: to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets. Environmental impacts are anticipated, however, the Applicant's offset proposal is a combination of a recycling program for its generated solid waste (which will be collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone) and emission reduction credits obtained from the Delaware Economic Development Office, which will more than achieve the offset required under Delaware's Coastal Zone Regulations;

4. The Department has carefully considered the factors required to be weighed in issuing a CZA permit, and finds that the proposed use is appropriate for the Coastal Zone at the proposed location, and that it should be permitted as set forth in GRT's application;

5. The Department shall issue a permit to the Applicant, Green Recovery Technologies, LLC, and said permit shall include all conditions consistent with the final Order and any other reasonable conditions that the Department

includes in a CZA permit, to ensure that Delaware's environment will be protected from harm, consistent with the CZA and its regulations;

6. The Department has carefully considered all the statutory factors to be considered in making a decision on a CZA permit and those required to be considered under the CZA regulations;

7. This Proposed Facility will allow the Applicant to operate its business while reducing the overall environmental impacts to the Coastal Zone area, in furtherance of the purposes of 7 *Del. C.*, Ch. 70;

8. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary;

9. The Department shall serve and publish its Order on all affected persons in a manner consistent with the service and publication of Secretary's Order.

David S. Small
Secretary

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HEARING OFFICER'S REPORT

TO: The Honorable David S. Small
Cabinet Secretary, Department of Natural Resources and Environmental Control

FROM: Lisa A. Vest
Public Hearing Officer, Office of the Secretary
Department of Natural Resources and Environmental Control

RE: **Application of Green Recovery Technologies, LLC, for a Coastal Zone Act Permit to construct and operate a facility that chemically separates high quality proteins and fats from poultry fines feedstock into high quality feed ingredients for animal nutrition markets, at 42 Lukens Drive in the Riveredge Industrial Park, New Castle, Delaware**

DATE: July 9, 2015

I. BACKGROUND AND PROCEDURAL HISTORY:

On Wednesday, June 17, 2015 at 6:00 p.m., a public hearing was held at the DNREC office located at 391 Lukens Drive, New Castle, Delaware, in order to receive comment on Green Recovery Technologies, LLC's ("Applicant", "GRT") application for a permit from DNREC under its authority in the Coastal Zone Act ("CZA"), 7 *Del. C.*, Ch. 70. The CZA regulates new manufacturing activities, or the expansion of existing manufacturing uses, within Delaware's "Coastal Zone", which is a geographic area along the Delaware Bay and Atlantic Ocean Coastlines, as defined by the CZA. This hearing was held pursuant to the aforementioned Delaware Coastal Zone Act and Delaware's *Regulations Governing Delaware's Coastal Zone.*

Pursuant to GRT's CZA permit application received by the Department on February 13, 2015[1], the Applicant seeks permission to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets. Poultry fines feedstock, consisting of approximately

[1] The receipt date does not determine when an application is deemed administratively complete, pursuant to CZA Regulations 8.3.1 and 8.3.6. The application was deemed administratively complete on February 13, 2015, which began a 90 day time period in which the Department must render its decision concerning this matter.

58% lipids, 35% protein, and 7% moisture, are placed by a third party vendor (currently from out of state) into one ton, industrial-grade sealed plastic bins for truck transport to GRT at the estimated rate of two (2) trucks of feedstock per operations day. The operation will take place inside a 120,000-square foot building, located on a parcel of property that is 9.13 acres in size, at 42 Lukens Drive, Riveredge Industrial Park, New Castle, Delaware. GRT's process utilizes the liquefied gas dimethyl ether ("DME") as the solvent to separate the proteins and lipids, resulting in a high purity protein stream (free of oil) and a high purity lipid stream (free of protein). The DME solvent is run in a closed-loop with full solvent recovery and automatic gas monitoring. The process has an integrated automatic fire detection and containment system. The resultant high quality feed ingredients (proteins and lipids) will then be sold and shipped to manufacturers in animal nutrition markets. Environmental impacts are anticipated, and the same will be discussed in detail below. The Applicant's offset proposal is a combination of a recycling program for its generated solid waste (which will be collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone) and emission reduction credits obtained from the Delaware Economic Development Office.

The Department requires a CZA Applicant to set forth in its application the proposed project's possible environmental impacts, including, but not limited to, any increased air emissions of pollutants, water quality/water quantity/water use, and the disposal of solid and hazardous wastes. Furthermore, any application for a CZA permit for an activity or facility that will result in any negative environmental impact shall contain an offset proposal. Offset proposals must more than offset the proposed environmental impacts of any proposed project[2].

[2] CZA Regulation 9.0, "Offset Proposals".

In the present matter, GRT's proposed project will result in air emissions generated at the Applicant's facility by three units: (1) the fume hood; (2) the boiler; and (3) the dust collector. While the minimal amount of air emissions associated with both the fume hood and the boiler units do not necessitate GRT to obtain an air permit from DNREC's Division of Air Quality ("DAQ"), the emissions generated by the dust collector unit will require an Air Quality Management ("AQM") permit under Department Regulation 1102, *Regulations Governing the Control of Air Pollution*, 7 DE Admin. Code §1102) Accordingly, the Applicant has submitted a separate application to DNREC's DAQ for an AQM permit to authorize the construction and operation of its aforementioned processing line, specifically, for the minor quantities of particulate matter and trace volatile organic compounds ("VOCs") that will exit the exhaust of the dust collector unit while the finished product is conveyed for shipment. The Department held a duly noticed public hearing regarding GRT's pending air permit application on June 17, 2015 as well, and a final decision with regard to that matter will be forthcoming in a separate Secretary's Order in the near future.

Continuing on with the possible impacts of the Applicant's proposed project within Delaware's Coastal Zone, office solid waste will be generated, totaling approximately 5,625 pounds annually. No other environmental impacts are anticipated. The GRT payroll will consist of thirty (30) employees, twenty of which will be from Delaware and 10 from other states. The site is in an existing industrial park, and the planned project will be consistent with the current industrial park setting. There will be no new supporting facilities and/or services required to support the proposed project, and effects on neighboring uses will be minimal. Lastly, the

proposed facility and operation is consistent with the New Castle County and City of New Castle comprehensive plans.

With respect to needed offset proposals obtained by the Applicant in this matter, GRT has obtained 7 NOx credits (4 ozone Season and 3 non-ozone season) and 2 VOC credits (1 ozone Season and 1 VOC non-ozone season) from the Delaware Economic Development Office ("DEDO") as their air offset for the boiler, fume hood, and dust collector emissions noted above. Additionally, office paper and other office solid waste will be recycled in appropriate bins, collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone. Packaging waste will be reused and/or recycled by the manufacturer.

The Department provided public notices of this CZA Application's submission and the determination of an administratively complete application following the Secretary's Assessment, which was signed on January 15, 2015. CZA Regulation 8.3.6 requires that the Secretary shall, within ninety (90) days of receipt of an administratively complete application, reply to the request for a CZA permit by "...either granting the permit, denying the permit, or granting the permit, but with special conditions. The Secretary shall state the reasons for his decision." In the present instance, the ninety (90) day deadline is April 15, 2015. Consequently, as noted above, the Department held a public hearing on February 11, 2015, at the DNREC offices located at 391 Lukens Drive, New Castle, Delaware. Public comments were received by the Department at the time of said public hearing, and the same will also be discussed in greater detail below.

II. SUMMARY OF THE PUBLIC HEARING RECORD:

The public hearing record consists of the following exhibit documents, which are hereby marked by this Hearing Officer as follows: (1) a verbatim transcript; (2) ten documents (with

Index List) introduced at the public hearing by Kevin Coyle, Principal Planner, DNREC Division of Energy and Climate as Department Exhibits 1-11; (3) written comment from Maya K. van Rossum on behalf of the Delaware Riverkeeper Network dated June 4, 2015, previously marked as "DE Riverkeeper Net. Exh. #1; (4) written comment from Anne Dorsey Fiske dated June 15, 2015, previously marked as "Fiske Exh. #1"; (5) correspondence from State of Delaware Rep. Valerie Longhurst dated June 17, 2015, previously marked as "Longhurst Exh. #1"; (6) written comment from Peggy Schultz on behalf of the League of Women Voters of Delaware, dated June 17, 2015, previously marked as "Schultz Exh. #1"; (7) written comment from Amy Roe, Ph.D., Conservation Chair, Delaware Audubon Society, dated June 17, 2015, previously marked as "DE Aud. Soc. Exh. #1"; (8) written comment from Alice Jarvis, Ph.D., dated June 17, 2015, previously marked as "Jarvis Exh. #1"; (9) written comment from Coralie A. Pryde, submitted at the time of the hearing on June 17, 2015, previously marked as "Pryde Exh. #1"; (10) supplemental written comment and corresponding exhibits from Stephanie L. Hansen, Esq., counsel for Applicant, dated June 24, 2015; (11) written comment from Carol Hickman dated June 30, 2015; and (12) Technical Response Memorandum dated July 9, 2015, written by Phil Cherry, Director, DNREC Division of Energy and Climate, as requested by this Hearing Officer.

The Department's person primarily responsible for reviewing the CZA Application, Kevin Coyle, developed the record with the relevant documents in the Department's files. Representatives of Green Recovery Technologies, LLC were present at the hearing, including, but not limited to, John Tracey, Esq., counsel for the Applicant in this matter. Following opening remarks from Mr. Coyle on behalf of the Department (and the introduction of the Department's exhibits to be entered into the hearing record), Mr. Tracey proceeded to offer a very thorough presentation on behalf of the Applicant for the benefit of the record regarding this

proposed project. At the conclusion of the Applicant's presentation, the floor was then opened for the purpose of offering public comment on the record regarding GRT's proposed project.

Several members of the public attending the public hearing on June 17, 2015 offered comment regarding the Applicant's proposed project. Common concerns voiced by the public with regard to GRT's proposed project included, but were not limited to, the possibility of negative impacts on the water quality, offensive odor from the feedstock materials, the possibility of a hazardous event arising from the aggregation and trapping of flammable vapors, and insufficiencies of the Applicant's proposed offset. In response to these concerns, Applicant's counsel provided supplemental comment and corresponding documentation for inclusion into the formal hearing record in email correspondence received by this Hearing Officer on June 24, 2015 (*see* Exh. 10 referenced above). Additionally, a brief Technical Response Memorandum ("TRM") was requested by this Hearing Officer from the Department's Division of Energy and Climate, to ensure that all issues surrounding this proposed project had been fully addressed prior to a final decision being made by the Secretary regarding this Coastal Zone permit application. Phil Cherry, Director of the Division of Energy and Climate, provided the requested TRM on July 9, 2015, and confirmed therein that the Department's Coastal Zone Program has thoroughly reviewed the hearing record generated with respect to this proposed project, has no further concerns regarding this matter, and recommends the issuance of this Coastal Zone permit at this time.

III. RECOMMENDED FINDINGS AND CONCLUSIONS:

This application is for a permit issued under the CZA. Preliminarily, I find that GRT's facility is located within Delaware's "Coastal Zone", and that the proposed project would represent a new manufacturing activity, the operation of which will take place inside a 120,000-square foot building, located on a parcel of property that is 9.13 acres in size, located at 42 Lukens Drive, Riveredge Industrial Park, New Castle, Delaware, within the Coastal Zone of Delaware, which requires a CZA permit for the same, to wit: to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets.

The Department is to evaluate a CZA application based upon a consideration of the CZA's balancing of economic and environmental factors. The CZA requires the Department to consider the following issues of any given proposed project: (1) environmental impacts; (2) economic impacts; (3) aesthetic impacts; (4) the number and type of supporting facilities required and their impacts on all other factors; (5) the impact on neighboring land uses; and (6) the county and municipal comprehensive plans. 7 *Del.C.* §7004.

The record developed in this matter indicates that the Department's experts have considered the above factors, and have recommended issuance of a permit to the Applicant in this matter. Further, the experts recommended that the application was sufficient, and that, while the Applicant's proposed project will create environmental impacts to air quality, GRT has obtained 7 NOx credits (4 ozone Season and 3 non-ozone season) and 2 VOC credits (1 ozone Season and 1 VOC non-ozone season) from the Delaware Economic Development Office ("DEDO") as their air offset for the boiler, fume hood, and dust collector emissions noted above. Additionally, office paper and other office solid waste will be recycled in appropriate bins,

collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone. Packaging waste will be reused and/or recycled by the manufacturer. That, combined with the aforementioned 7 offset credits obtained from DEDO, will more than achieve the offset required under Delaware's Coastal Zone Regulations. I agree with the recommendations of the Department's experts.

Based on the record developed, I find and conclude that the Applicant has adequately demonstrated its compliance with all requirements of the Delaware Coastal Zone Act Regulations and Statutes, as noted herein, and that the record supports approval of GRT's CZA permit application. In conclusion, I recommend that a Coastal Zone Permit consistent with the record developed in this matter be issued by the Department in the customary form, and with appropriate conditions, to ensure continued improvement of environmental quality in the Coastal Zone of the State of Delaware.

Further, I recommend the Secretary adopt the following findings and conclusions:

1. The Department has jurisdiction under its statutory authority to issue a CZA Permit to the Applicant, subject to reasonable permit conditions deemed appropriate and consistent with the CZA's purposes;
2. The Department provided adequate and lawful public notice of the Coastal Zone Act Application of Green Recovery Technologies, LLC, and of the public hearing held on June 17, 2015, and held said hearing to consider any public comment that may be offered on the application, in a manner required by the law and regulations;
3. The permit applied for by GRT is for production/manufacturing activities which will take place within the defined Coastal Zone of Delaware, and is for a new manufacturing activity, the operation of which will take place inside a 120,000-square

foot building, located on a parcel of property that is 9.13 acres in size, located at 42 Lukens Drive, Riveredge Industrial Park, New Castle, Delaware, within the Coastal Zone of Delaware, which requires a CZA permit for the same, to wit: to construct and operate a facility that chemically separates high quality proteins and fats from a poultry fines feedstock into high quality feed ingredients for animal nutrition markets. Environmental impacts are anticipated, however, the Applicant's offset proposal is a combination of a recycling program for its generated solid waste (which will be collected by a waste disposal company and transported to an appropriate disposal location outside of the Coastal Zone) and emission reduction credits obtained from the Delaware Economic Development Office, which will more than achieve the offset required under Delaware's Coastal Zone Regulations;

4. The Department has carefully considered the factors required to be weighed in issuing a CZA permit, and finds that the proposed use is appropriate for the Coastal Zone at the proposed location, and that it should be permitted as set forth in GRT's application;

5. The Department shall issue a permit to the Applicant, Green Recovery Technologies, LLC, and said permit shall include all conditions consistent with the final Order and any other reasonable conditions that the Department includes in a CZA permit, to ensure that Delaware's environment will be protected from harm, consistent with the CZA and its regulations;

6. The Department has carefully considered all the statutory factors to be considered in making a decision on a CZA permit and those required to be considered under the CZA regulations;

7. This Proposed Facility will allow the Applicant to operate its business while reducing the overall environmental impacts to the Coastal Zone area, in furtherance of the purposes of 7 *Del. C.*, Ch. 70;

8. The Department has an adequate Record for its decision, and no further public hearing is appropriate or necessary;

9. The Department shall serve and publish its Order on all affected persons in a manner consistent with the service and publication of Secretary's Order.

LISA A. VEST
Public Hearing Officer

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