



APPLICATION FOR A COASTAL ZONE ACT PERMIT

**State of Delaware
Department of Natural Resources & Environmental Control
Office of the Secretary**

December 1, 2010
Terra Systems
Terra Systems, Inc.

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Permit Application Instructions

1. Complete all parts of the application. For sections which are not applicable to your project, do not leave blank; present a statement that clearly states why the section is not applicable to your project.
2. Because all applicants' projects are different, this word document template will provide you flexibility for needed space to answer the questions. Please insert additional lines for text where needed for your application. If appropriate, attach extra pages referencing each answer by the corresponding section and question number.
3. Submit eight complete hard copies of the permit application to:

Office of the Secretary
Department of Natural Resources & Environmental Control
State of Delaware
89 Kings Highway
Dover, DE 19901

- In addition to the eight hard copies, submit a complete electronic "pdf" copy of the permit application and a copy of the Offset Matrix in Microsoft Word format on cd-rom.
4. Comply, if required, or as requested by the DNREC Secretary, with [7 Delaware Code, Chapter 79, Section 7902](#). If requested, but not completed, your application will not be considered administratively complete until this form is reviewed.
 5. Be sure to include your permit application fee of \$3,000; otherwise the application will not be considered administratively complete. Make checks payable to the "State of Delaware."
 6. Be advised that the application for a Delaware Coastal Zone Act Permit is a public document, which may be displayed at DNREC offices, public libraries, and the web, among others. If this application requires you to place confidential information or data in the application to make it administratively complete, note the Delaware Freedom of Information Act ([29 Delaware Code, Chapter 100](#)) and [DNREC's Freedom of Information Act Regulation](#), Section 6 (Requests for Confidentiality), for the proper procedure in requesting confidentiality.

Note: This application template was last revised by DNREC on January 30, 2008. Please discard any previous versions.

PART 1

CERTIFICATION BY APPLICANT

Under the penalty of perjury pursuant to 11 Delaware Code §1221-1235, I hereby certify that all the information contained in this Delaware Coastal Zone Act Permit Application and in any attachments is true and complete to the best of my belief.

I hereby acknowledge that any falsification or withholding of information will be grounds for denial of a Coastal Zone Permit.

I also hereby acknowledge that all information in this application will be public information subject to the Delaware Freedom of Information Act, except for clearly identified proprietary information agreed to by the Secretary of the Department of Natural Resources & Environmental Control.

Richard L. Raymond, Jr.
Print Name of Applicant

Signature of Applicant

President
Title

December 1, 2010
Date

PART 2

APPLICANT INFORMATION AND SITE IDENTIFICATION

2.1 Identification of the applicant:

Company Name: Terra Systems, Inc.
Address: 1035 Philadelphia Pike, Suite E, Wilmington, DE 19809
Telephone: 302-798-9553
Fax: 302-798-9554

2.2 Primary contact: Please list the name, phone number and email of a preferred contact within your company in case the DNREC needs to contact you regarding this permit application.

Richard L. Raymond, Jr.
302-798-9553
draymond@terrasystems.net

2.3 Authorized agent (if any):

Name: None
Address:
Telephone:
Fax:

2.4 Project property location (street address):

618 Lambson Lane
New Castle, DE 19720

2.5 In a separate attachment, provide a general map of appropriate scale to clearly show the project site.

2.6 Is the applicant claiming confidentiality in any section of their application?

YES XX
NO

If yes, see instructions on page 3.

PART 3

PROJECT SUMMARY

Provide a one-page summary describing the proposed project. Include a brief quantitative description of the anticipated environmental impacts, and how the Environmental Offset Proposal will “clearly and demonstrably” more than offset any negative impacts.

Terra Systems, Inc. is considering leasing 5,000 square feet of office and warehouse space in a building located at 618 Lambson Lane, New Castle, Delaware. The 94,767 square foot facility situated on 13.5065± acres of land is currently used as an office and warehouse. The Terra Systems, Inc. leased space will be used for the following three activities:

Activity #1: Office Space -- approximately 1,000 square feet

Activity #2: Research & Development, Treatability Testing, Product Quality -- Testing Laboratory – approximately 1,400 square feet. We currently operate our laboratory at 1035 Philadelphia Pike Suite E, Wilmington DE under EPA Permit DER000002360

Activity #3: Fluid Blending – approximately 2,600 square feet.

The following is a description of our fluid blending activity:

Terra Systems, Inc. provides a patented emulsified vegetable oil substrate product called SRS[®] that is used for the bioremediation of chlorinated solvent contaminated groundwater. SRS[®] is injected into the groundwater of a contaminated site and utilized by indigenous bacteria as a food source to generate hydrogen that dechlorinating bacteria then utilize to biodegrade the chlorinated solvents. This product was developed under an Air Force Center for Environmental Excellence R&D contract in 2000 with the first application at a large TCE plume at Dover Air Force Base. It is currently being used to remediate a number of sites in the United States, Asia, South America, and Europe.

The raw materials consist of food-grade Generally Recognized as Safe (GRAS) materials which include soybean oil, emulsifiers, sodium lactate, yeast extract, nutrients, vitamin B₁₂, and water. Occasionally, we also include buffering agents (either sodium carbonate or sodium bicarbonate) or tracers such as sodium bromide. There are no by-products from the blending operation. SRS[®] is packaged in 55-gallon drums, 275-gallon totes, and 5,500-gallon tankers.

None of the raw materials have been identified as being carcinogenic, toxic, or mutagenic. A copy of the MSDS for SRS[®] is enclosed for your information.

TSI also manufactures two additional products, QRS[™] Plus and TSI-EZVI[™]. QRS[™] consists of sodium lactate, organic and inorganic nutrients, buffers, and water. TSI-EZVI[™] consists of soybean oil, food grade surfactants, water, and zero valent iron. All

components, with the exception of zero valent iron, of QRS™ and TSI-EZVI™ consist of food-grade materials and are not toxic, mutagenic, or carcinogenic.

The fluid blending activity relies on electrically operated machinery which does not have the potential to contribute to the formation of smog.

The Testing laboratory activities include studies to evaluate monitored natural attenuation of chlorinated solvents and petroleum, enhanced aerobic bioremediation of petroleum, and enhanced anaerobic bioremediation of chlorinated solvents. TSI also offers treatability studies for in situ chemical oxidation.

In Situ Aerobic Bioremediation Treatability Studies

TSI has extensive experience in evaluating in situ aerobic biodegradation of petroleum hydrocarbons ranging from gasoline and diesel to heavier products such as No. 6 Fuel oil. TSI can evaluate the benefits of inorganic nutrient additions, pH control, or various oxygen sources from sparged oxygen, slow release oxygen compounds, or hydrogen peroxide.

Monitored Natural Attenuation

TSI has done a number of assessments of monitored natural attenuation of chlorinated solvents and petroleum hydrocarbons in soils, groundwater, and sediments both in laboratory evaluations and from field monitoring data.

In Situ Anaerobic Bioremediation

TSI has conducted more than eighty anaerobic bioremediation studies over the past 20 years investigating the fate of chlorinated solvents such perchloroethene, trichloroethene, cis-1,2-dichloroethene, vinyl chloride, 1,2-dichloroethane, carbon tetrachloride, chloroform, methylene chloride, Dinoseb, 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, chloroethane, and petroleum. We can evaluate different substrates, amendments to adjust pH, nutrients, or the need for bioaugmentation to promote the complete dechlorination of the solvents. TSI personnel conducted a number of the microcosm studies in support of the Remediation Technology Development Forum (RTDF) project at Dover Air Force Base. TSI also operated the pilot system which was the first field demonstration of bioaugmentation to promote the complete dechlorination of trichloroethene and cis-1,2-dichloroethene to ethene. TSI is a participant in the SABRE (Source Area BioRemediation Evaluation) project in Great Britain which conducted laboratory and field investigations of dense nonaqueous phase liquids.

In Situ Chemical Oxidation

TSI has conducted a number of treatability studies to evaluate the oxidant demand for oxidants such as permanganate or persulfate. TSI has also evaluated the effectiveness of permanganate, persulfate, ozone, or hydrogen peroxide to destroy contaminants from

aromatics like benzene, toluene, ethylbenzene, xylenes; polynuclear aromatic hydrocarbons; chlorinated solvents such as perchloroethene, trichloroethene, 1,1,1-trichloroethane, 2-chloropropene, carbon tetrachloride, and others.

Other Services

TSI can determine the number of culturable total bacteria and numbers of specific degraders such as gasoline or diesel. TSI offers light hydrocarbon gas analyses to quantify biodegradation products such as methane, acetylene, ethene, and ethane.

Equipment

TSI has a gas chromatograph dedicated to the analyses of chlorinated solvents and light hydrocarbon gases. We also work closely with other analytical laboratories when other analyses are needed or when certified analyses are required. TSI possess a laboratory chemical hood to safely conduct treatability studies with volatile constituents. The TSI laboratory also has an anaerobic chamber used to set up anaerobic microcosm studies. General laboratory equipment include centrifuge, temperature controlled shaker table, ovens, pH meters, redox meters, conductivity meters, dissolved oxygen, spectrophotometer, microscope, and other miscellaneous equipment.

USDA Permit to Receive Foreign Soils

TSI has a permit from the United States Department of Agriculture allowing it to import soils from outside of the continental United States. The permit number is P330-10-00222.

EPA Generator ID

TSI has an EPA permit to conduct treatability studies. Our EPA Permit number is DER000002360. We report the number and quantity of treatability study samples to the Delaware Department of Natural Resources and Conservation yearly.

Treatability Sample Disposal

Upon receipt, samples are logged in. When the samples are used in the treatability study, the quantity of soil remaining is recorded. Upon the completion of the studies, the treatability samples can be returned to the client or sent for disposal. In the past, samples were sent to Southeastern Chemical, 755 Industrial Drive, Sumter, SC 29151 (SCDO36275626) for disposal. Disposal of the materials from various treatability studies was arranged through GTI Oil and Chemical Trading Environmental Services, P. O. Box 1269, Madison, NJ 07940.

PART 4

**PROJECT PROPERTY RECORD AND
EVIDENCE OF LOCAL ZONING AND PLANNING APPROVAL**

PROJECT PROPERTY RECORD

4.1 Name and address of project premises owner(s) of record:

Delaware River Industrial Park, LLC
29 East Commons Blvd.
Suite 100
New Castle, DE 19720

4.2 Name and address of project premises equitable owner(s):

Delaware River Industrial Park, LLC
29 East Commons Blvd.
Suite 100
New Castle, DE 19720

4.3 Name and address of lessee(s):

Terra Systems, Inc.
1035 Philadelphia Pike, Suite E
Wilmington, DE 198098

4.4 Is the project premises under option by permit applicant?

No

4.5 What is the present zoning of the land for this entire project site?

H1

EVIDENCE OF LOCAL ZONING AND PLANNING APPROVAL
PLEASE SEE ATTACHED LETTER FROM NEW CASTLE COUNTY

I, _____, for _____
(Name of County, City of Town)

do hereby affirm that the project proposed by _____
(Name of Applicant)

located at _____, in
(Address)

the _____ zoning district is in
full compliance with the zoning code as it applies to this project.

The above named applicant's project is in compliance with the adopted comprehensive development plan for the geographic area within which the project will be located.

(Signature)

(Title)

(Date)

This part is essential for a complete Coastal Zone Act Permit Application. No application will be considered administratively complete without it. While the applicant is strongly advised to use this form, the local zoning jurisdiction may utilize a different form or document to demonstrate "evidence of local zoning approval," provided such documents are signed and dated by the proper official.



Department of Land Use

November 19, 2010

**In reply, refer to:
2010-0737-V
618 Lambson Lane**

R. L. Raymond, Jr., President
Terra Systems, Inc.
1035 Philadelphia Pike, Suite E
Wilmington, DE 19809

Dear Mr. Raymond:

The New Castle County Department of Land Use is in receipt of your request for a verification of zoning and use for tax parcel number 10-011.00-027, which is located at 618 Lambson Lane, New Castle, Delaware. A review of the Official Zoning Map of New Castle County indicates the subject parcel is zoned **HI (Heavy Industrial), which permits both light and heavy industrial uses, including manufacturing emulsified vegetable oil**, pursuant to Table 40.03.110 of the *New Castle County Code*. The HI zoning also permits associated office space and a research and development testing laboratory.

Please be advised that this letter only verifies whether the type of use that exists, or is proposed, on the site -- to the extent you described it in your zoning verification application -- is permitted, not permitted, or permitted under limited circumstances in the zoning district. This letter is not a permit and does not offer any guarantee that any other required plans, applications, certifications, or variances for your project will be approved.

If your project involves an expansion of the existing use, a change of use, alterations to the building or site, demolition, or new construction, one or more permits may be needed before you can initiate the use. Following, is a summary of Department of Land Use permits, certificates, and plans that may be required for your project:

Any new use or change of use in an existing building may require:

1. **Limited Use Permit.** If the existing or proposed use is identified as a "limited use" on the first page of this letter you will need to apply for a Limited Use Permit. This application must be accompanied by a site plan, or other supporting documentation, demonstrating that the special standards for that use are met. Refer to Chapter 40 of the *New Castle County Code* (UDC), Articles 3 and 31 for additional information.

2. **Certificate of Use.** To either institute a new use, or expand an existing use, in an existing building you must obtain a Certificate of Use. The Department will determine whether the building meets the building code requirements for such use. Refer to Chapter 6, Article 2 of the *New Castle County Code* (Building Code) for additional information.

Any new construction, or alteration or expansion of existing buildings and features on the site may require:

1. **Major or Minor Land Development Plan.** If your project will subdivide land or add more than 1,000 square feet of gross floor area, you must submit a major or minor land development plan. The plan will be reviewed for compliance with the land development criteria outlined in Chapter 40 of the *New Castle County Code* (UDC). During review of the plan, the Department may hold public hearings and may identify other applications, plans, studies, or permits that need to be submitted before development can commence. Refer to Chapter 40, Article 31 for general requirements.
2. **Parking Plan.** If your project requires installation, expansion, or reconfiguration of a parking lot, you will need to submit a parking plan. Refer to Chapter 40, Articles 3 and 31 of the *New Castle County Code* (UDC) for general requirements.
3. **Building Permit / Demolition Permit / Sign Permit.** If your project will involve altering or enlarging a building (including mechanical systems), demolishing all or part of a building, or installing new signs, you must obtain permits for those activities. During the review of these applications, the Department may identify other applications, plans, studies, or permits that need to be submitted before development can commence. Before the new or improved building can be inhabited, a **Certificate of Occupancy** must be secured from the Department. Refer to Chapter 6, Article 2 of the *New Castle County Code* (Building Code) for additional information.

This summary of Department of Land Use permit applications is intended only for general informational purposes and is not intended to be inclusive of the comprehensive requirements contained in the *New Castle County Code*. Please be advised that some of the review processes described above may also require recommendations or decisions from County boards (Planning Board, Historic Review Board, Board of Adjustment, and Resource Protection Area Technical Advisory Committee) or outside agencies. New Castle County must abide by regulations imposed on it by a variety of State and Federal agencies. Accordingly, any of the County permits described above may be subject to additional review processes that address environmental concerns; resource protection; public health, safety, and welfare; and a variety of other issues. In some cases, landowners may need to address the requirements of those agencies independently.

2010-0737-V

November 19, 2010

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Landowners contemplating a change of use, future development, or alterations to buildings and land are encouraged to engage the services of an engineer, land surveyor, and/or attorney for advice on any physical constraints that may limit development of the property, and guidance on what permits may be needed to commence a new use or development.

General questions regarding the plan review process; building, demolition, and sign permits; and Certificates of Use/Occupancy, can be answered by the Department at 395-5400. Thank you for your attention to this matter.

Sincerely,



Kenneth R. Bieri
Assistant Planning Manager

PART 5

PROJECT OPERATIONS

- 5.1 Describe the characteristics of the manufactured product and all the process and/or assembly operations utilized by the proposed project. Include in the description (use attachments if necessary):
- a. the raw materials, intermediate products, by-products and final products and characteristics of each. Review any materials' risk of carcinogenicity, toxicity, mutagenicity and/or the potential to contribute to the formation of smog. Provide material safety data sheets (MSDS) if available;

Raw Materials: None of the following materials pose a risk of carcinogenicity, mutagenicity and/or to contribute to the formation of smog.

- Glycerol Mono-oleate – Food product; non-toxic
- Glycerol – Food product, non-toxic
- Lecithin – Food product; non-toxic
- Diammonium phosphate – Industrial chemical; non-toxic
- Poly sorbate 80 -- Food product; non-toxic
- Potassium oleate – Food product, non-toxic
- Ethyl lactate – Food product, non-toxic
- Sodium carbonate – Industrial chemical;
- Sodium bicarbonate – Household chemical; non-toxic
- Sodium bromide – Industrial chemical; non-toxic
- Sodium Lactate – Food product; non-toxic
- Span 80 – Food product, non-toxic
- Tween 80 – Food product; non-toxic
- Vegetable Oil – Food product, non-toxic
- Vitamin B₁₂ – Food product; non-toxic
- Water – Food product, non-toxic
- Yeast extract – Food product; non-toxic
- Zero valent iron – industrial chemical; non-toxic

Intermediate Products: NONE

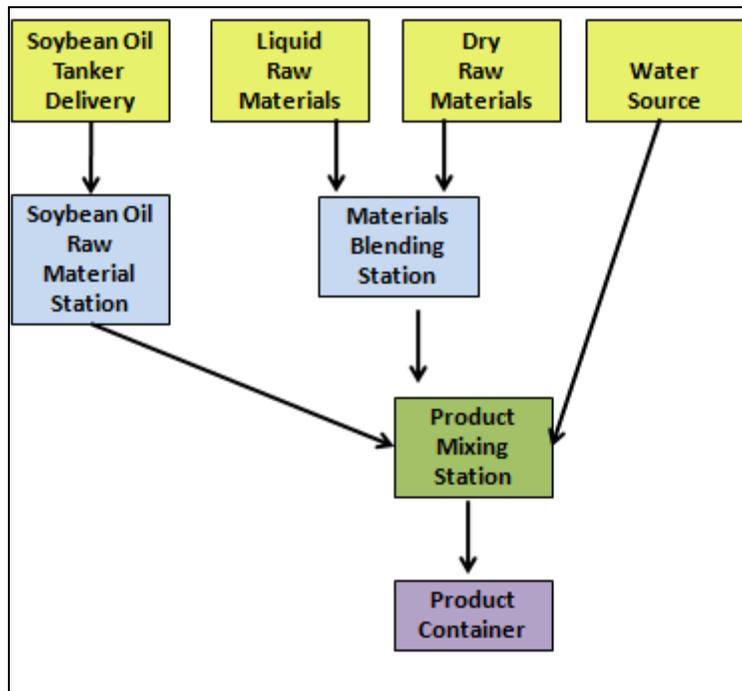
By-products: NONE

Final products:

- SRS[®] emulsified vegetable oil for bioremediation of chlorinated contaminated groundwater
- QRS[™] enhanced sodium lactate product for bioremediation of chlorinated contaminated groundwater

- TSI-EZVI™ emulsified zero valent iron for bioremediation of chlorinated contaminated groundwater

b. the step-by-step procedures or processes for manufacturing and/or assembling the product(s). Provide a flow diagram to illustrate procedures;



c. the nature of the materials mentioned above in 4.1(a) as to whether or not the materials require special means of storage or handling;

None of the materials require special means of storage or handling.

d. list the machinery (new and/or existing) to be utilized by this project;

The machinery and equipment will consist of:

- Homogenizer – similar to milk processing plant equipment
- High shear mixer
- Pumps
- Above-ground tanks as described above
- Mixers for tanks
- Product storage containers as described
- Forklift truck

e. list any new buildings or other facilities to be utilized;

All operations will be conducted within the existing facility.

- f. list the size and contents of any anticipated aboveground or underground storage tank systems that may be constructed or utilized in support of facility operations;

2,500 gallon AST -- Soybean Oil
2,500 gallon AST -- Soybean Oil
2,500 gallon AST -- Soybean Oil
1,500 gallon AST -- Soybean Oil
1,100 gallon AST -- Mixing tank for SRS product
300 gallon AST -- Water
110 gallon AST -- Water
110 gallon AST -- Mixing tank for additives

All tanks will be inside of the building.

- g. if this project represents an increase or decrease in production at an already existing facility, what will be the new rate of maximum production?

This project will result in an increase in soybean oil storage capacity of 2,500 gallons and increased indoor storage of finished product. The current blending facility is located in West Chester, Pennsylvania. This project will result in additional laboratory space as compared to the existing laboratory at 1035 Philadelphia Pike, Suite E, Wilmington.

- h. if this project represents a totally new facility at a new or existing site, what will be the maximum production rate?

The proposed facility will have the capacity to blend up to 3,700-gallons of product during a 24 hour period. However, the facility will generally operate from 7:00 am to 7:00 pm on a daily basis with an output of 1,850 gallons of product.

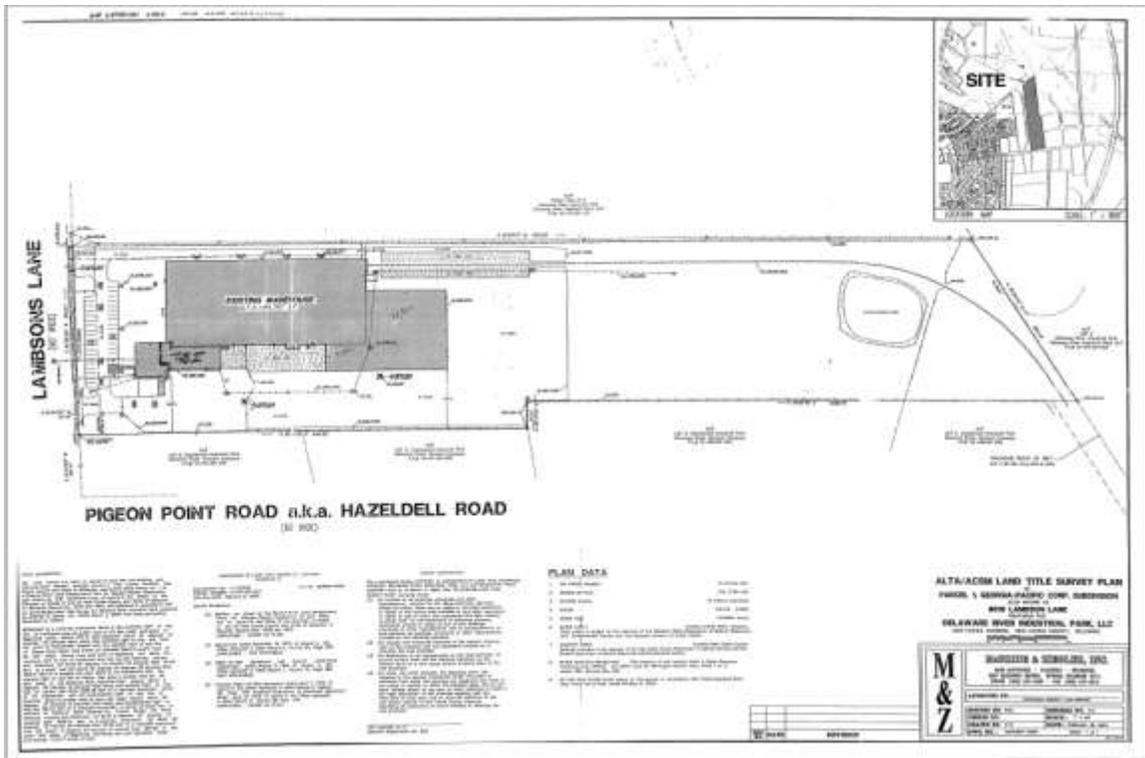
- 5.2 Describe daily hours of plant operations and the number of operating shifts.

The proposed facility will typically operate Monday through Friday from 7:00 AM to 7:00 PM. Occasionally, the facility will be operated on the weekends or in shifts.

- 5.3 Provide a site plan of this project with:

- a. a north arrow;

- b. a scale of not less than one inch to 200 feet;
- c. identity of the person responsible for the plan, including any licenses and their numbers;
- d. the acreage of the applicant's entire property and acreage of the proposed project;
- e. property lines of entire property;
- f. lines designating the proposed project area for which application is being made, clearly distinguished from present facilities and operating areas (if any);
- g. existing and proposed roads, railroads, parking and loading areas, piers, wharfs, and other transportation facilities;
- h. existing water bodies and wetlands and proposed dredge and fill areas, and;
- i. existing and proposed drainage ways, gas, electric, sewer, water, roads, and other rights-of-way.



Please refer to Appendix I for an enlarged paper copy of this site plan.

5.4 How many acres of land in total are required for this proposed project?

Existing/ currently utilized/ developed land: 13.5065 acres.

New land: -0- acres.

5.5 Has the property been involved with a state or federal site cleanup program such as Superfund, Brownfields, HSCA Voluntary Cleanup Program, RCRA Corrective Action, Aboveground or Underground Storage Tank Cleanup Programs? If so please specify which program.

No

5.6 With regards to environmental cleanup actions, has a Uniform Environmental Covenant, Final Plan of Remedial Action, or no further action letter been issued by the Department? If so are the planned construction activities consistent with the requirements or conditions stated in these documents?

Not applicable

PART 6A

ENVIRONMENTAL IMPACTS

Air Quality

6.1 Describe project emissions (new, as well as any increase or decrease over current emissions) by type and amount under maximum operating conditions:

Pollutant	Existing Emissions		Net Increase/Decrease		New Total Emissions		Percent Change (compare tons/year)
	<i>Lbs/day</i>	<i>Tons/year</i>	<i>Lbs/day</i>	<i>Tons/year</i>	<i>Lbs/day</i>	<i>Tons/year</i>	
NONE							

6.2 Describe how the above emissions change in the event of a mechanical malfunction or human error.

Not Applicable

6.3 Describe any pollution control measures to be utilized to control emissions to the levels cited above in 5.1.

Not applicable

6.4 Show evidence that applicant has, or will have, the ability to maintain and utilize this equipment listed in 5.3 in a consistently proper and efficient manner. (For example, provide college transcripts and/or records of training courses and summary of experience with this pollution control equipment of person(s) responsible for pollution control equipment, and/or provide copies of contracts with pollution control firms to be responsible for maintaining and utilizing this equipment.)

Not applicable

Water Quality

- 6.5 Describe wastewater discharge (new, as well as any increase or decrease over current discharge levels) due to project operations:

Pollutant	Current Discharge Concentration (ppm)	New or Changed Discharge Concentration (ppm)	Current Discharge		Net Increase/Decrease		New Total Emissions	
			Lbs/day	Tons/year	Lbs/day	Tons/year	Lbs/day	Tons/year
NONE								

- 6.6 Describe the current method of employee sanitary wastewater disposal and any proposed changes to that system due to this proposed project.

Sanitary wastewater discharge is to the New Castle County POTW facility. There are no proposed changes to that system due to this proposed project.

- 6.7 Identify the number, location, and name of receiving water outfall(s) of any and all process wastewater discharge (new or current) affected by this proposed project. Provide NPDES Permit Numbers for each discharge affected.

Not applicable

- 6.8 If any effluent is discharged into a public sewer system, is there any pretreatment program? If so, describe the program.

The only effluent discharged into the public sewer system is non-contact cooling water for the homogenizer. A pretreatment program is not necessary because there are no contaminants in this water.

- 6.9 Stormwater:

- a. Identify the number, location, and name of receiving waters of stormwater discharges. Provide permit number for each discharge.

This is an existing facility. No changes in the stormwater will occur as a result of the proposed project.

- b. Describe the sources of stormwater run-off (roofs, storage piles, parking lots, etc).

Roof drains
Parking lot

- c. Describe the amount of stormwater run-off increase over current levels that will result from the proposed project.

None

- d. Describe any pollutants likely to be in the stormwater.

No additional pollutants (volume or type) will result from the proposed project.

- e. Describe any pollution control device(s) or management technique(s) to be used to reduce the amount of stormwater generated, and devices to improve the quality of the stormwater run-off prior to discharge.

Not applicable

- f. Describe any new or improved stormwater drainage system required to safely carry off stormwater without flooding project site or neighboring areas down gradient.

Not applicable

- 6.10 Will this project use a new water intake device, or increase the use (flow) from an existing intake device?

YES

NO

If yes, state:

- a. the volume of water to be withdrawn, and;
- b. describe what will be done to prevent entrainment and/or entrapment of aquatic life by the intake device.

- 6.11 Will this proposed project result in a thermal discharge of water, or an increase in the flow or temperature of a current thermal discharge?

YES

NO

If yes, state:

- a. the volume of the new flow or increase from the existing thermal discharge, both in flow and amount of heat;
- b. how warm will the water be when it is discharged into a receiving waterway, discharge canal, or ditch, and what will be the difference in discharge temperature and ambient temperature (delta T) at various seasons of the year after all cooling water mechanisms have been applied to the hot water?
- c. the equipment and/or management techniques that will be used to reduce the thermal load of the discharge water.

6.12 Will any proposed new discharge or change in existing discharge cause, or have potential to cause, or contribute to, the exceedence of applicable criteria appearing in the [“State of Delaware Surface Water Quality Standards”](#)?

YES

NO

If yes, explain:

6.13 Describe any oils discharged to surface waters due to this proposed project.

NONE

6.14 Describe any settleable or floating solid wastes discharged to surface waters due to this project.

NONE

6.15 Show evidence that the applicant has, or will have, the ability to maintain and utilize any water pollution control equipment listed in questions 5.5 through 5.14 in a consistently proper and efficient manner. (For example, provide operator license numbers, college transcripts and/or training courses and summary of prior experience with this pollution control equipment of person(s) responsible for pollution control equipment, and/or provide copies of contracts with pollution control firms.)

Not applicable.

- 6.16 Estimate the amount of water to be used for each specified purpose including cooling water. State daily and maximum water use in the unit of gallons per day for each purpose and source of water. State if water use will vary with the seasons, time of day, or other factors.

The homogenizer requires non-contact cooling water at the rate of 0.5 gpm. During a 24-hour period, the maximum discharge of non-contact cooling water to the sanitary sewer system will be 300 gallons. (The homogenizer only runs 10 hours during a 24 hour day of production.) In addition, we will use about 270 gallons of water per batch of SRS[®] or a maximum of 540 gallons per day of production. Total water usage per day if production is 24 hours per day will be 840 gallons.

- 6.17 Identify the source of water needed for the proposed project, including potable water supplies.

Existing potable water provided by Artesian Water Company.

- 6.18 Are wells going to be used?

YES

NO

If yes:

- a. Identify the aquifer to be pumped and the depth, size and pumping capacity of the wells.
- b. Has a permit been applied for to do this?
- c. How close is the proposed well(s) to any well(s) on adjacent lands?

Solid Waste

6.19 Will this project result in the generation of any solid waste?

YES

NO

If yes, describe each type and volume of any solid waste (including biowastes) generated by this project, and the means used to transport, store, and dispose of the waste(s).

Product components will be shipped to the facility in:

55-gallon metal drums which will be transported to a local drum recycling facility

55-gallon plastic drums which are reused or transported to a local drum recycling facility

275-gallon IBC containers which are reused

Paper bags which contain dry raw materials. They will either be recycled if the service is provided or disposed of by a licensed garbage disposal company.

6.20 Will there be any on-site recycling, re-use, or reclamation of solid wastes generated by this project?

YES

NO

If yes, describe:

Product components will be shipped to the facility in:

55-gallon metal drums which will be transported to a local drum recycling facility

55-gallon plastic drums which are reused or transported to a local drum recycling facility

275-gallon IBC containers which are reused

Paper bags which contain dry raw materials. They will either be recycled if the service is provided or disposed of by a licensed garbage disposal company.

Any off-specification product will either be re-blended or disposed of at a licensed landfill (currently Vexor, Inc. in Ohio).

6.21 Will any waste material generated by this project be destroyed on-site?

YES

NO

If yes, how will that be done?

Hazardous Waste

6.22 Will this proposed project result in the generation of any hazardous waste as defined by the [“Delaware Regulations Governing Hazardous Waste”](#)?

YES

NO

If yes, identify each hazardous waste, its amount, and how it is generated:

Fluid Blending Activity: NONE

Testing Laboratory Activity: Testing is done on soil and groundwater that contain organic contaminants such as petroleum hydrocarbons or chlorinated hydrocarbons and inorganic contaminants such as hexavalent chrome. Terra Systems, Inc. currently operates a testing laboratory at its Wilmington, DE facility under EPA Permit No. DER000002360. Upon completion of the testing, all soil and groundwater is either returned to the site owner or disposed at a licensed disposal facility in accordance with the regulations for testing laboratories.

6.23 Describe the transport of any hazardous waste and list the permitted hazardous waste haulers that will be utilized.

Fluid Blending Activity: Not applicable

Testing Laboratory Activity: Hazardous waste haulers utilized for disposal of laboratory wastes are either Cycle Chem or Eldredge, Inc.

6.24 Will the proposed project cause the applicant to store, treat, and/or dispose of hazardous waste?

YES

NO

If yes, describe:

Fluid Blending Activity: Not applicable

Testing Laboratory Activity: Laboratory samples of soil and groundwater that contain hazardous waste.

6.25 Does the applicant currently generate any hazardous waste at this site?

YES

NO

If yes, describe:

Habitat Protection

6.26 What is the current use of the land that is to be used for the proposed project?

Office and warehouse

6.27 Will the proposed project result in the loss of any wetland habitat?

YES

NO

If yes, describe:

6.28 Will any wastewater and/or stormwater be discharged into a wetland?

YES

NO

If yes, will the discharge water be of the same salinity as the receiving wetlands?

6.29 Will the proposed project result in the loss of any undisturbed natural habitat or public use of tidal waters?

YES

NO

If yes, how many acres?

6.30 Do threatened or endangered species (as defined by the DNREC and/or the Federal Endangered Species Act) exist at the site of the proposed project, or immediately adjacent to it?

YES

NO

If yes, list each species:

6.31 Will this proposed project have any effect on these threatened or endangered species (as defined by the DNREC and/or the Federal Endangered Species Act).

YES

NO

If yes, explain:

- 6.32 What assurances can be made that no threatened or endangered species exist on the proposed project site?

A significant portion of the property is covered by the existing building and paved parking area. We have physically inspected the lawn area in front and side of the building (approximately 29,000 square feet) and found no signs of a threatened or endangered species habitat.

- 6.33 Describe any filling, dredging, or draining that may affect nearby wetlands or waterways.

NONE

- 6.34 If dredging is proposed, how much will occur and where will the dredged materials go for disposal?

NONE

Other Environmental Effects

- 6.35 Describe any noticeable effects of the proposed project site including: heat, glare, noise, vibration, radiation, electromagnetic interference, odors, and other effects.

There will not be any noticeable effects of the proposed activity to the surrounding area other than the delivery of raw materials and pickup of finished products. The facility is bordered by the Delaware River Industrial Park, a new car storage lot and a Federal Express freight terminal.

- 6.36 Describe what will be done to minimize and monitor such effects.

Not Applicable

- 6.37 Describe any effect this proposed project will have on public access to tidal waters.

NONE

- 6.38 Provide a thorough scenario of the proposed project's potential to pollute should a major equipment malfunction or human error occur, including a description of backup controls, backup power, and safety provisions planned for this project to minimize any such accidents.

- Potential To Pollute:
 - Raw material storage: All of the raw materials will be stored inside of the building which will contain any single tank rupture.
 - Raw material deliveries: The largest single volume of raw material is soybean oil which is delivered in a DOT approved tank truck. Typically, each delivery is 6,260 gallons. All other materials are delivered via common carrier truck and are moved from the inside truck dock to an inside storage area. The potential to pollute exists during the transfer of the soybean oil from the tank truck to the inside storage tanks. There are a series of valves that can be turned off, including one on the tank truck in the event of a release. Containment pads and booms are on-site in the event of a spill or release and a 24-hour emergency response company with vacuum trucks will be prepared to respond to a catastrophic release event. The tank truck driver and Terra Systems personnel are required to physically monitor all fluid transfer events.

- Fluid blending activity: The activity occurs within the confines of the building. Terra Systems personnel are present in the blending area during all blending and have the ability to shut off pumps and valves in the event of a release. Adequate sorbent pads and booms are available in the manufacturing area in addition to fluid vacuum equipment to immediately contain any release.

6.39 Describe how the air, water, solid and hazardous waste streams, emissions, or discharge change in the event of a major mechanical malfunction or human error.

The non-contact cooling water will be shut off immediately. There are no air, solid and hazardous waste streams, emissions, or other discharge changes in the event of a major mechanical malfunction or human error.

PART 6B

ENVIRONMENTAL OFFSET PROPOSAL REDUCTION CLAIM

Is applicant claiming the right to have a reduced offset proposal due to past voluntary improvements as defined in the “Regulations Governing Delaware’s Coastal Zone”?

YES

NO

If yes, provide an attachment to the application presenting sufficient tangible documentation to support your claim.

PART 6C

ENVIRONMENTAL OFFSET PROPOSAL

If the applicant or the Department finds that an Environmental Offset Proposal is required, the proposed offset project shall include all the information needed to clearly establish:

The fluid blending activity relies on electrically operated machinery which does not have the potential to contribute to the formation of smog. The amount of electricity utilized by Terra Systems, Inc. is minor when compared to the total power generation capacity within the state of Delaware and therefore, will not cause an increase in the power generation capacity within in the state of Delaware. Therefore, it is our opinion that an offset project will not be required.

- A. A qualitative and quantitative description of how the offset project will “*clearly and demonstrably*” more than offset the negative impacts from the proposed project.
- B. How and in what period of time the offset project will be carried out.
- C. What the environmental benefits will be and when they will be achieved.
- D. What scientific evidence there is concerning the efficacy of the offset project in producing its intended results.
- E. How the success or failure of the offset project will be measured in both the short and long term.
- F. What, if any, negative impacts are associated with the offset project.
- G. How the offset will impact the attainment of the Department’s environmental goals for the Coastal Zone and the environmental indicators used to assess long-term environmental quality within the Coastal Zone.

Additional Offset Proposal Information for the Applicant

1. The offset proposals must “*clearly and demonstrably*”¹ more than offset any new pollution from the applicant’s proposed project. The applicant can claim (with documentation) evidence of past voluntary environmental investments (as defined in the Regulations) implemented prior to the time of application. Where the Department concurs with the applicant that such has occurred, the positive environmental improvement of the offset proposal against the new negative impact can be somewhat reduced.

2. The applicant must complete the Coastal Zone Environmental Impact Offset Matrix. This matrix can be found on the CZA web page (<http://www.dnrec.delaware.gov/Admin/CZA/CZAHome.htm>), or by clicking on [this link](#). On page one, the applicant must list all environmental impacts in the column labeled “Describe Environmental Impacts.” In the column to the immediate right, the applicant should reference the page number of the application or attachment which documents each impact listed. In the “Describe Environmental Offset Proposal” column, applicant must state what action is offsetting the impact. The offset action shall be referenced by page number in the column to the right to show how the offset will work. The applicant shall not utilize the far right column. *Please ensure the matrix is complete, detailed, and as specific as possible, given the allotted space. Also, thoroughly proof-read to ensure there are no spelling or grammatical errors.* The applicant must submit a completed matrix both in hardcopy and electronic form.

3. Please note: the entire offset proposal, including the matrix, shall be available to the public, as well as the evidence of past voluntary environmental enhancements.

¹ For purposes of this requirement, the DNREC will interpret the phrase “clearly and demonstrably” to mean an offset proposal that is obviously so beneficial without detailed technical argument or debate. The positive environmental benefits must be obviously more beneficial to the environment than the new pollution that minimal technical review is required by the Department and the public to confirm such. The total project must have a positive environmental impact. The burden of proof is on the applicant.

PART 7
ECONOMIC EFFECTS

Construction

- 7.1 Estimate the total number of workers for project construction and the number to be hired in Delaware.

5

- 7.2 Estimate the weekly construction payroll.

\$2.900

- 7.3 Estimate the value of construction supplies and services to be purchased in Delaware.

\$18.800

- 7.4 State the expected dates of construction initiation and completion.

Completion will be within 2 weeks after receipt of approval to proceed.

- 7.5 Estimate the economic impact from the loss of natural habitat, or any adverse economic effects from degraded water or air quality from the project on individuals who are directly or indirectly dependent on that habitat or air or water quality (e.g. commercial fishermen, waterfowl guides, trappers, fishing guides, charter or head boat operators, and bait and tackle dealers).

NONE

Operations

- 7.6 State the number of new employees to be hired as a direct result of this proposed project and how many of them will be existing Delaware residents and how many will be transferred in from other states.

None

- 7.7 If employment attributable to the proposed project will vary on a seasonal or periodic basis, explain the variation and estimate the number of employees involved.

Not applicable

- 7.8 Estimate the percent distribution of annual wages and salaries (based on regular working hours) for employees attributable to this project:

<u>Wage/salary</u>	<u>Percent of employees</u>
<\$10,000	
\$10,000-14,999	
\$15,000-24,999	
\$25,000-34,999	
\$35,000-49,999	
\$50,000-64,999	
\$65,000-74,999	
\$75,000-99,999	
>\$100,000	

- 7.9 Estimate the annual taxes to be paid in Delaware attributable to this proposed project:

State personal income taxes:	\$
State corporate income taxes	\$
County and school district taxes:	\$
Municipal taxes:	\$

PART 8

SUPPORTING FACILITIES REQUIREMENTS

Describe the number and type of new supporting facilities and services that will be required as a result of the proposed project, including, but not limited to:

- a. Roads -- NONE
- b. Bridges -- NONE
- c. Piers and/or docks -- NONE
- d. Railroads -- NONE
- e. Microwave towers -- NONE
- f. Special fire protection services not now available -- NONE
- g. Traffic signals -- NONE
- h. Sewer expansion -- NONE
- i. Energy related facilities expansion -- NONE
- j. Pipelines -- NONE

PART 9

AESTHETIC EFFECTS

- 9.1 Describe whether the proposed project will be located on a site readily visible from a public road, residential area, public park, or other public meeting place (such as schools or cultural centers).

Not applicable. All activities, with the exception of transfer of soybean oil from the delivery tanker to inside tanks, of the project will be inside an existing building.

- 9.2 Is the project site location within a half mile of a place of historic or scenic value?

No

- 9.3 Describe any planned attempt to make the proposed facility aesthetically compatible with its neighboring land uses. Include schematic plans and/or drawings of the proposed project after it is complete, including any landscaping and screening.

Not applicable since this is an existing facility and all facility renovations will be in the interior of the building.,

PART 10

EFFECTS ON NEIGHBORING LAND USES

- 10.1 How close is the nearest year-round residence to the site of this proposed project?

Approximately 0.19 mile

- 10.2 Will this proposed project interfere with the public's use of existing public or private recreational facilities or resources?

No

- 10.3 Will the proposed project utilize or interfere with agricultural areas?

No

- 10.4 Is there any possibility that the proposed project could interfere with a nearby existing business, commercial or manufacturing use?

No

END OF APPLICATION

ATTACHEMENTS TO FOLLOW

APPENDIX I

MSDS for 60% SRS[®]



60% SLOW RELEASE EMULSIFIED VEGETABLE OIL SUBSTRATE (SRS[®]) MSDS

Effective Date: 01/01/2010

1. Product Identification

Synonyms: 60% Slow Release Emulsified Vegetable Oil Substrate (SRS[®])

CAS No.: Mixture

Molecular Weight: Not applicable.

Chemical Formula: Not applicable.

Supplier: Terra Systems, Inc.

1035 Philadelphia Pike

Suite E

Wilmington DE 19809

Telephone (302) 798-9553

Facsimile: (302) 798-9554

2. Composition/Information on Ingredients

Ingredient	CAS #	Percent	Hazardous
Food grade edible soy bean oil	NA	60%	No
Emulsifiers and proprietary nutrient package containing nitrogen, phosphorus and vitamin B ₁₂	Mixture	5 – 15%	No
Sodium Lactate	72-17-3	<5%	Yes
Water	7732-18-5	20 - 30%	No

3. Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE EYE IRRITATION.

Health Rating: 1 - Slight

Flammability Rating: 1 - Slight

1035 Philadelphia Pike
Suite E
Wilmington Delaware 19809
302-798-9553
Fax 302-798-9554
www.terrasystems.net





Reactivity Rating: 1 - Slight

Contact Rating: 1 - Slight

Lab Protective Equip: GOGGLES; LAB COAT; PROPER GLOVES

Storage Color Code: Green (General Storage)

Potential Health Effects

Inhalation:

Not expected to be a health hazard. If heated, may produce vapors or mists that irritate the mucous membranes and cause irritation, dizziness, and nausea. Remove to fresh air.

Ingestion:

Not expected to be a health hazard via ingestion. Large doses may produce abdominal spasms, diarrhea.

Skin Contact:

No adverse effects expected. May cause irritation or sensitization in sensitive individuals.

Eye Contact:

May cause mild irritation, possible reddening.

Chronic Exposure:

No information found.

Aggravation of Pre-existing Conditions:

No information found.

4. First Aid Measures

Inhalation:

Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

5. Fire Fighting Measures

Fire:

Flash point: >200 °C (>392 °F)

Not considered to be a fire hazard.

Explosion:

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Fax 302-798-9554
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Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Clean-up personnel may require protective clothing. Absorb in sand, paper towels, "Oil Dry", or other inert material. Scoop up and containerize for disposal. Flush trace residues to sewer with soap and water. Containerized waste may be sent to an approved waste disposal facility.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Containers of this material are not hazardous when empty since they do not contain vapors or harmful substances; observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

None established.

Ventilation System:

Not expected to require any special ventilation.

Personal Respirators (NIOSH Approved):

Not expected to require personal respirator usage.

Skin Protection:

Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible.



9. Physical and Chemical Properties

Appearance:

White liquid.

Odor:

Vegetable oil.

Solubility:

Soluble in water.

Specific Gravity:

0.95-0.98 g/mL

pH:

7-8 (40% aqueous solution)

% Volatiles by volume @ 21C (70F):

Negligible.

Boiling Point:

≥ 100C (≥ 212F)

Melting Point:

No information found.

Vapor Density (Air=1):

No information found.

Vapor Pressure (mm Hg):

< 1.0 @ 20C (68F)

Evaporation Rate (BuAc=1):

No information found.

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Strong oxidizers, acids.

Conditions to Avoid:

Incompatibles.

11. Toxicological Information

Sodium Lactate. Oral rat LD50: 2,000 mg/kg. 100 mg caused mild irritation to rabbit eye in Draize test.





12. Ecological Information

Environmental Fate:

No information found.

Environmental Toxicity:

No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

OSHA STATUS: This product is not hazardous under the criteria of the Federal OSHA hazard Communication Standard 29 CFR 1910.1200. However, thermal processing and decomposition fumes from this product may be hazardous as noted in Section 10.

TSCA STATUS: No component of this product is listed on the TSCA inventory.

CERCLA (Comprehensive Response Compensation, and Liability Act): Not reportable.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

Section 312 Extremely Hazardous Substances: None

Section 311/312 Hazard Categories: Non-hazardous Under Section 311/312

Section 313 Toxic Chemicals: None

RCRA STATUS: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

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CALIFORNIA PROPOSITION 65: The following statement is made in order to comply with the California safe Drinking Water and Toxic Enforcement Act of 1986. The product contains no chemicals known to the State of California to cause cancer.

16. Other Information

NFPA Ratings: Health: 1 Flammability: 1 Reactivity: 0

Revision Information:

MSDS Section(s) changed since last revision of document include: None.

Disclaimer:

Terra Systems, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. TERRA SYSTEMS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, TERRA SYSTEMS, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Terra Systems, Inc.

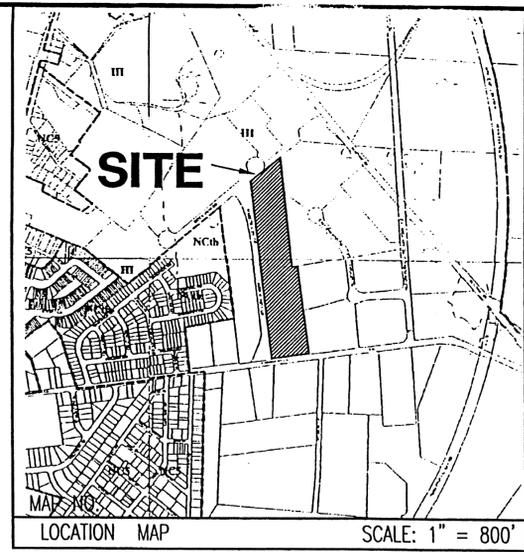
Phone Number: (302) 798-9553 (U.S.A.)

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Wilmington Delaware 19809
302-798-9553
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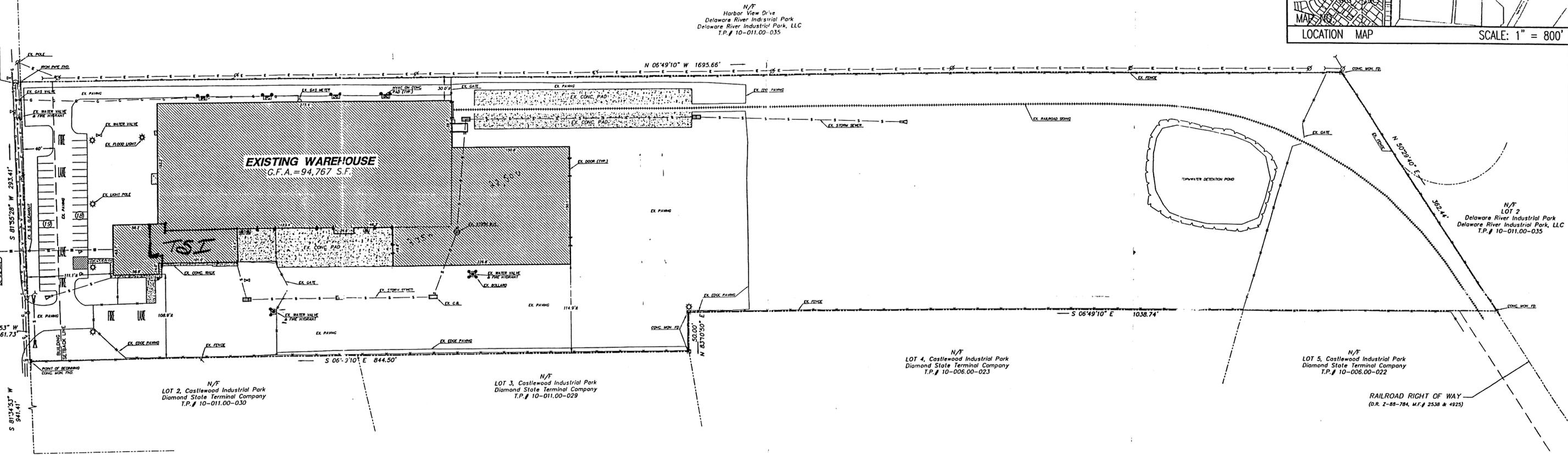


APPENDIX II

SITE PLAN



LAMBSONS LANE
(60' WIDE)



PIGEON POINT ROAD a.k.a. HAZELDELL ROAD
(60' WIDE)

LEGAL DESCRIPTION:
ALL that certain lot, piece or parcel of land with the building and improvements thereon, situate in New Castle Hundred, New Castle County and State of Delaware, said parcel being Parcel No. 1 on Castle County and State of Delaware, said parcel being Parcel No. 1 on a Record Minor Land Development Plan for Georgia-Pacific Corporation, a Record Minor Land Development Plan for Georgia-Pacific Corporation, also known as 618 Lambsons Lane, of record in the Office of the Recorder of Deeds in and for New Castle County and State of Delaware, on Microfilm Record No. 2538 and 4925, and prepared in accordance with an ALTA/ACSM Land Title Survey for Delaware River Industrial Park, prepared by McBride & Ziegler, Inc., dated March 3, 2003, and more particularly described as follows:
BEGINNING at a concrete monument found in the northerly right of way line of Lambsons Lane (a public road of 60 feet wide), said point of beginning being distant 941.41 feet measured South 81 degrees 34 minutes 53 seconds West along said northerly right of way line from the point of intersection thereof with the westerly right of way line of Pigeon Point Road, also known as Hazeldell Road (a public road of 60 feet wide); thence from said point of Beginning and along the northerly right of way of Lambsons Lane the two (2) following courses and distances: (1) South 81 degrees 34 minutes 53 seconds West 81.59 feet to a point; and (2) South 81 degrees 53 minutes 28 seconds West, 293.41 feet to a capped iron pipe found at its intersection with the easterly right of way line of Harbor View Drive (a private road of 60 feet wide) in the Delaware River Industrial Park; thence North 6 degrees 49 minutes 10 seconds West along said easterly right of way line of Harbor View Drive 1695.48 feet to a concrete monument found at its intersection with the southeasterly right of way line of Dockview Drive (a private road of sixty feet wide); thence North 50 degrees 27 minutes 15 seconds East along said southeasterly right of way line 362.44 feet to a concrete monument, a corner of lands now or formerly of Diamond State Terminal Co.; thence hereby the three following courses and distances: (1) South 6 degrees 49 minutes 10 seconds East 1038.74 feet to a concrete monument; (2) North 83 degrees 10 minutes 50 seconds East 50.00 feet to a concrete monument; and (3) South 6 degrees 49 minutes 10 seconds East 844.50 feet to the point and place of Beginning. Containing with said described metes and bounds, 13.50 R acres of land.

COMMONWEALTH LAND TITLE INSURANCE COMPANY
SCHEDULE B
Commitment No.: C-203029 File No. 203029-0029
PARCEL NUMBER: 10-011.00-027
Effective Date: February 8, 2003
Special Exceptions:
(a) Matters as shown on the Record Minor Land Development Plans for Georgia-Pacific Corporation, as said Plans are of record in the Office of the Recorder of Deeds, in and for New Castle County and State of Delaware, in Microfilm Record Nos. 2538 and 4925. (APPLICABLE: SHOWN ON PLAN)
(b) Restrictions dated November 18, 1970, of record in the Office aforesaid in Deed Record K, Volume 84, Page 646. (APPLICABLE - NOT PLOTTABLE)
(c) Right-of-Way Agreement with General Waterworks Corporation, dated August 5, 1964, of record in the Office aforesaid in Deed Record T, Volume 73, Page 180. (NOT APPLICABLE)
(d) Railroad Right-of-Way Agreement dated April 1, 1974, of record in the Office aforesaid in Deed Record Z, Volume 88, Page 784, amended Amendment to Easement Agreement dated June 14, 1974, of record in the Office aforesaid in Deed Record H, Volume 89, Page 706. (APPLICABLE: SHOWN ON PLAN)

SURVEY CERTIFICATION
The undersigned hereby CERTIFIES to COMMONWEALTH LAND TITLE INSURANCE COMPANY, DELAWARE RIVER INDUSTRIAL PARK, LLC and WILMINGTON TRUST COMPANY that as of March 5, 2003, this "ALTA/ACSM LAND TITLE SURVEY PLAN" correctly shows:
(1) the location of all buildings, structures and other improvements, situated on the above premises; and that, except as shown, there are no visible or recorded easements or rights of way across said premises or any other easements or rights of way of which the undersigned has been advised, no party walls, no encroachments on adjoining premises, easements, streets or alleys by any of said buildings, structures or other improvements, and no encroachments on said premises by buildings, structures or other improvements situated on the adjoining premises;
(2) the courses and measured distances of the exterior property lines of the premises and any easements located on or affecting the said premises;
(3) the dimensions of all improvements on the said premises, at ground surface level and the distance therefrom to the nearest tenth of a foot facing exterior property lines of the said premises;
(4) the scale, the north direction, the beginning point, the distance to the nearest intersection street and point of reference from which the premises are measured, the width of the street or streets on which the premises abut, the lot and block number shown on any plan to which reference is made in the legal description of the premises together with the filing date of such plan, and an accurate reference to the real estate records of New Castle County, Delaware, identifying all easements of record crossing or affecting the said premises.
ROY ZIEGLER, P.L.S.
Delaware Registration No. 603

PLAN DATA

- TAX PARCEL NUMBER: 10-011.00-027
- SOURCE OF TITLE: D.B. 2750-103
- EXISTING ZONING: HI (Heavy Industrial)
- DATUM: N.G.V.D. (1929)
- GROSS AREA: 13.5065± Acres
- WATER SUPPLY: Existing United Water Company. Water supply is subject to the approval of the Delaware State Department of Natural Resources and Environmental Control and the Delaware Division of Public Health.
- SANITARY SEWER: Existing New Castle County Sewerage is subject to the approval of the New Castle County Department of Special Services and the Delaware Department of Natural Resources and Environmental Control.
- WATER RESOURCE PROTECTION: This property is not located within a Water Resource Protection Area (WRPA). See WRPA map for Wilmington-Newark Area, sheet 1 of 3, dated 1993, Revised May 2001.
- NO 100-YEAR FLOOD PLAIN exists on this parcel, in accordance with Flood Insurance Rate Map, Panel 160 of 450, dated October 6, 2000.

REV. NO.	DATE	REVISION

ALTA/ACSM LAND TITLE SURVEY PLAN
OF
PARCEL 1, GEORGIA-PACIFIC CORP. SUBDIVISION
ALSO KNOWN AS
#618 LAMBSON LANE
PREPARED FOR
DELAWARE RIVER INDUSTRIAL PARK, LLC
NEW CASTLE HUNDRED, NEW CASTLE COUNTY, DELAWARE

M & Z

McBRIDE & ZIEGLER, INC.
LAND SURVEYORS • PLANNERS • ENGINEERS
2607 EASTBURN CENTER, NEWARK, DELAWARE 19711
PHONE (302) 737-9138 • FAX (302) 737-2610

APPROVED BY: _____
PROFESSIONAL ENGINEER / LAND SURVEYOR

SURVEY BY: M&Z	CHECKED BY: R.Z.
DESIGN BY: S.I.T.	SCALE: 1" = 60'
DWG. NO.: 20033857-5909	DATE: FEBRUARY 28, 2003
	SHEET 1 of 1