



## **APPLICATION FOR A COASTAL ZONE ACT PERMIT**

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

**May 12, 2015  
Techmer Engineered Solutions – New Castle, Delaware Facility  
Techmer Engineered Solutions, LLC.**

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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, Delaware 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.

Tom Dye  
Print Name of Applicant

Tom Dye  
Signature of Applicant

Managing Director  
Title

5/12/2015  
Date

## PART 2

### APPLICANT INFORMATION AND SITE IDENTIFICATION

2.1 Identification of the applicant:

Company Name: **Techmer Engineered Solutions, LLC**  
Address: **1 Quality Circle**  
**Clinton, Tennessee 37716**  
Telephone: **865-805-7325**  
Fax: **865-457-9125 (email: TDrye@TechmerES.com)**

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.

**Tom Drye, Managing Director, 865-805-7325, TDrye@TechmerES.com**

2.3 Authorized agent (if any):

Name: **Craig Smith, Landmark Science & Engineering, Inc.**  
Address: **100 W. Commons Blvd., Suite 301**  
**New Castle, Delaware 19720**  
Telephone: **302-323-9377, Ext 146**  
Fax: **302-323-9461 (email: craigs@landmark-se.com)**

*If you have an authorized agent for this permit application process, provide written authorization from client for being the authorized agent.*

2.4 Project property location (street address):

**1600 Johnson Way**  
**New Castle, Delaware 19720**

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

**Attachment A**

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

**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.*

**Techmer Engineered Solutions LLC (Techmer), a formulator/compounded plastic resin production company, intends to lease the vacant portion ( $\pm 85,000$  ft<sup>2</sup>) of an existing 121,246 ft<sup>2</sup> steel and masonry commercial structure located at 1600 Johnson Way, Centerpoint Business Complex, New Castle, Delaware. The subject property is further identified as Tax Parcel No. 21-013.00-115, and is zoned “21I Industrial”. No new construction, new impervious cover, or vegetation removal are proposed within the subject property. The proposed project will consist primarily of retrofitting the space to accommodate the extrusion process to manufacture uniform, compounded, engineering plastic pellets. Techmer currently operates three similar factories within the United States, (including one location in Aston, Pennsylvania), and its headquarters is in Clinton, Tennessee.**

**The proposed manufacturing process uses electrically-heated extruder lines to blend melted raw materials, (thermoplastic resins and additives), which are extruded in strands and chopped into pelletized plastics produced per customer specifications. The extruders melt the resin blend at temperatures typically between 500-550°F. The final plastic product is composed of 75% non-hazardous engineered polymers and 25% non-hazardous organic and inorganic pigments, plastic stabilizers, and product-specific enhancers.**

**The extruder lines will vent steam and *de minimis* fugitive emissions through the ventilation system. *De minimus* emissions to the ambient atmosphere from the extruding operations will consist of primarily volatile organic compounds (VOCs) and particulate matter (PM). Emissions from the extruders are dependent on a number of factors, including raw materials used (polymers and resins), operating temperature of the extruder, and number of extruders in operation; (the Aston factory currently operates 7 extruder lines and the proposed Delaware factory will operate between 7-10 lines). The VOC and PM emissions from the Aston factory will be similar to those to be produced at the New Castle facility and are well below the Pennsylvania Department of the Environment (PADEP) major and area thresholds (a summary of the estimated VOC and PM emissions from the Aston factory is included in the attachments of this document).**

**Proposed pollution prevention strategies include the installation of a 20 yd<sup>3</sup> on-site compactor for solid waste; a complete phase-out of the older propane-powered forklifts with electric-powered ones; process fumes (which are 98% steam) will be filtered through activated charcoal before being discharged through the ventilation system to remove any offensive odors associated with this process; the  $\pm 500$  gallons**

**per year (gal/yr) of non-hazardous wastewater produced will be cleaned and filtered before being discharged into public sewer system (this material will be sent off site for treatment); and the ±55 gallons per month (gal/mo) of non-hazardous oily sludge will be containerized in drums and removed by an authorized service for off-site disposal.**

**Two dust collectors will be installed at the site on the exterior of the structure.**

**The subject property is currently comprised of an existing commercial structure surrounded by maintained lawn areas and landscaping. A scrub-shrub hedgerow with scattered trees along the southern property line buffers the subject property from the adjacent active rail line. No Waters of the U.S., wetlands, or habitat for state or federal rare species are present within the property.**

**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:

**Centerpoint 1600, LLC  
1201 N. Market Street, Suite 400  
Wilmington, Delaware 19801**

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

**Centerpoint 1600, LLC  
1201 N. Market Street, Suite 400  
Wilmington, Delaware 19801**

4.3 Name and address of lessee(s):

**Techmer Engineered Solutions, LLC  
1 Quality Circle  
Clinton, Tennessee 37716**

4.4 Is the project premises under option by permit applicant?

**Yes**

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

**21I Industrial**

EVIDENCE OF LOCAL ZONING AND PLANNING APPROVAL

I, JEFFREY A BERGSTROM FOR THE CITY OF NEW CASTLE

(Name of County, City of Town)

do hereby affirm that the project proposed by Techmer Engineered Solutions, LLC – New Castle Facility

(Name of Applicant)

located at 1600 Johnson Way, Centerpoint Business Complex, New Castle, DE, in

(Address)

the Industrial -I 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.

Jeffrey Bergstrom  
(Signature)

BUILDING OFFICIAL  
(Title)

5.15.15  
(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.*

## 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;
  - 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;
  - d. List the machinery (new and/or existing) to be utilized by this project;
  - e. List any new buildings or other facilities to be utilized;
  - 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;
  - 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?
  - h. If this project represents a totally new facility at a new or existing site, what will be the maximum production rate?

**Please refer to Attachment A in the Appendix for Section 5.1**

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

**Monday–Friday; 24 hours/day, three 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 Attachment B in the Appendix for Section 5.3**

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

Existing/ currently utilized/ developed land: 8.55 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. An ASTM E1527-13 Phase I Environmental Site Assessment (ESA) was conducted for the subject property in March 2015 by SCS Engineers. This ESA concluded that there are no ASTM Recognized Environmental Conditions (RECs) within the subject property. The EDR Database Search included in the ESA listed the business name for the subject property as "Amazon.com PHL3" with its RCRA Database listing as RCRA-SQG, (small-quantity generator) Facility ID: 1016447827, and "no violations found". According to the ESA, no unauthorized releases of hazardous substances or petroleum products (e.g. Leaking Underground Storage Tanks, Emergency Response Notification System, Superfund Sites, and databases reporting hazardous materials users and/or hazardous waste generators) are recorded**

**as being present within the subject property. A copy of the complete Phase I ESA is available upon request. Amazon.com had previously leased the space for use during seasonal overflow.**

- 5.6 With regard 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?

**No such covenant, Remedial Action, or “no further action” letters have been required, produced, or issued for the subject property. A copy of the complete Phase I Environmental Site Assessment is available upon request.**

**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)
	Lbs/day	Tons/year	Lbs/day	Tons/year	Lbs/day	Tons/year	
VOC	0	0	9.25	1.69	9.25	1.69	100%
PM	0	0	0.96	0.175	0.96	0.175	100%

**The data in the table above denotes the expected emissions for the proposed project as based on current similar operating process lines at the Techmer Aston facility. Techmer estimates an eventual maximum total emission output of 5.5 tons/year (combined VOCs and PMs) from anticipated future growth.**

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

**In the event of a mechanical malfunction or human error, there would be no change in the above emissions. The extruder lines are electrically heated so if one were to break down it would result in the shutdown of the machinery and possible product degradation. No explosive materials will be used so there is no risk of an explosion. However, flammable materials will be used so fire is a possibility. The warehouse already contains a fully operational sprinkler system and the extrusion lines will utilize water that will be recycled through chillers as a coolant. In the event of a fire, the machines would be cooled using the chilled water and the ventilation system would filter any fumes as usual.**

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

**No explosive, thermal, toxic, corrosive, bacteriological, radiological, or hazardous materials will be used at the facility and/or are involved in the manufacturing process. The final plastic product will be composed of 75% non-hazardous engineered polymers and 25% non-hazardous organic and inorganic pigments, plastic stabilizers, and product-specific enhancers.**

**Each extruder line will collect the fumes (which is 98% steam) resulting from the melting process. These fumes will be filtered through activated charcoal banks prior to their discharge through the ventilation system. Thus, no foul**

or offensive odors and only *de minimus* fugitive volatile organic compounds (VOCs) and particulate matter (PM) will escape into the atmosphere.

Techmer uses water as a coolant for their extruders, which is recycled through the chillers in a closed-loop vacuum-pump, water circulating system. The relatively small amounts of liquid, non-hazardous wastewater the factory will produce, ( $\pm 500$  gal/yr), will be cleaned and filtered before being discharged into the public sewer system. The relatively small amounts of non-hazardous oily sludge that will be produced, ( $\pm 55$  gal/mo), will be containerized in drums and removed off-site by Gemini Services or a similarly authorized contractor.

Solid waste will be accumulated in a 20 yd<sup>3</sup> compactor for removal and off-site disposal. A pump room with a main transformer will be located inside the existing warehouse where an air compressor will operate in the winter pumping warmed air inside. Remaining portions of the facility will be heated and cooled by natural gas.

The New Castle Techmer facility will require the use of forklifts in the warehouse. Currently, half of their forklift fleet is electric-powered and half are propane-powered. Techmer intends to phase out the older propane-powered forklifts and ultimately have a fleet comprised entirely of electric-powered forklifts, thus further decreasing emissions.

- 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.)

<b>MANAGEMENT POSITION</b>	<b>EDUCATION</b>
<b>Director of Manufacturing</b>	<b>M.S., Mechanical Engineering</b>
<b>Director of Technology</b>	<b>Ph.D., Organic Chemistry</b>
<b>Corporate Engineering Manager</b>	<b>B.S., Polymeric Engineering</b>
<b>Corporate EHS Manager</b>	<b>B.S., Loss Prevention &amp; Safety</b>
<b>Managing Director TES</b>	<b>M.S., Engineering</b>

Employees will be trained how to appropriately and safely operate new equipment upon installation.

**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
N/A*	0	0	0	0	0	0	0	0

**\*A small amount of non-hazardous liquid wastewater (±500 gal/yr) will be produced as a result of product manufacturing. The wastewater will be cleaned and filtered before its discharge into the public sewer system.**

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

**The subject property is already connected to the local municipal sewer system (Sewer District Northern-ASMT). No changes to the sewer service are being proposed in association with this 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.

**There are no water outfalls that will receive process wastewater discharges.**

**NPDES Permit Number DE 0051071 authorizes the town of New Castle to discharge stormwater to waters of the State located in New Castle County in accordance with the comprehensive storm water pollution prevention and management program (expires May 6, 2018).**

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

**Process related water is mechanically filtered to remove solids prior to discharge to the sanitary sewer.**

6.9 Stormwater:

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

**All stormwater discharges are managed by on-site systems specifically designed for and constructed in the Centerpoint Business Park.**

**NPDES Permit Number DE 0051071 authorizes the town of New Castle to discharge stormwater to waters of the State located in New Castle County.**

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

**The principal sources of stormwater discharges from the subject property are the building rooftop and the surrounding paved parking areas and access roads.**

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

**No changes will be made to the building exterior and roof, and no increases in paved areas are planned. Thus, there will be no increase in stormwater runoff from the current conditions.**

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

**No pollutants will be discharged into stormwater as a result of this 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.

**No changes will be made to the building exterior and roof, and no increases in paved areas are planned. Thus, there will be no change in existing stormwater runoff quantity or quality.**

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

**The existing stormwater management systems situated within the subject property and the surrounding commercial properties in the Centerpoint Business Complex were designed using the best**

**management practices of that time for stormwater management and flood control. There is no history of either on-site or downstream flooding issues. The subject property is mapped as “Zone X” on the FEMA map (enclosed), which indicates it to be in an area of minimal flood hazard, and located outside of any Flood Hazard Zones.**

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

**NO Any increase in water use required as a result of the proposed project will be provided by Artesian Water Co., the municipal water supplier.**

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?

**NO The small amount of non-hazardous liquid wastewater ( $\pm 500$  gal/yr) produced as a manufacturing byproduct will be cleaned and filtered, and discharged directly into the municipal sewer system.**

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 exceedance of applicable criteria appearing in the [“State of Delaware Surface Water Quality Standards”](#)?

**NO Techmer uses recycled water in a closed-loop system as a coolant for their extruders. The relatively small amounts ( $\pm 500$  gal/yr) of non-**

**hazardous wastewater produced will be cleaned and filtered before being discharged into the public sewer system.**

**A stream of contact cooling water will produce relatively small amounts ( $\pm 165$  gal/quarter) of non-hazardous oily sludge and 500 gal/quarter waste water produced will be containerized in drums and removed off-site by Gemini Services or a similarly authorized contractor. 1,000 gal/day of contact cooling water will enter the sanitary sewer daily after mechanical filtration.**

If yes, explain:

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

**No oils will be discharged into any surface waters as a result of this project.**

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

**Techmer uses recycled water in a closed-loop system as a coolant for their extruders. The relatively small amounts ( $\pm 500$  gal/yr) of non-hazardous wastewater produced will be cleaned and filtered before being discharged into the public sewer system.**

**A stream of contact cooling water that produces relatively small amounts ( $\pm 165$  gal/quarter) of non-hazardous oily sludge and 500 gal/quarter waste water produced will be containerized in drums and removed off-site by Gemini Services or a similarly authorized contractor. 1000 gal/day of contact cooling water will enter the sanitary sewer daily after mechanical filtration.**

- 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.)

<b>MANAGEMENT POSITION</b>	<b>EDUCATION</b>
<b>Director of Manufacturing</b>	<b>M.S., Mechanical Engineering</b>
<b>Director of Technology</b>	<b>Ph.D., Organic Chemistry</b>
<b>Corporate Engineering Manager</b>	<b>B.S., Polymeric Engineering</b>
<b>Corporate EHS Manager</b>	<b>B.S., Loss Prevention &amp; Safety</b>
<b>Managing Director TES</b>	<b>M.S., Engineering</b>

**Employees will be trained how to appropriately and safely operate new equipment upon installation.**

- 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.

**Total estimated water consumption for the proposed project is estimated at 1.00 to 1.75 million gallons annually or 2,740 to 4,795 gallons/day, depending on the type of vacuum pumps utilized in the process. Employee use is estimated at 750 gallons/day so 1,990 to 4,045 gallons/day will be used for the cooling tower, vacuum pump, cooling skids, and evaporation replacement.**

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

**The proposed project will have no need for non-potable water. All potable water will be provided by Artesian Water Co., the municipal water supplier.**

- 6.18 Are wells going to be used?

**NO Artesian Water Co., the municipal water supplier, currently provides potable water to the subject property and will provide any additional water on an as-needed basis.**

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**

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).

**The processes of the proposed project will generate no hazardous waste. The solid waste material that will be accumulated in the 20 yd<sup>3</sup> compactor will consist of plastic resin purging, packaging materials, floor sweepings, and household-type waste. This solid waste will be disposed of through a licensed disposal company.**

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

**YES**

If yes, describe:

**Techmer has implemented an Environmental Management System (EMS) at each of their locations. This system is designed to aid and guide their manufacturing facilities with environmental regulatory compliance, sustainability initiatives, waste minimization, the impact of our processes and products on the environment, recycling efforts and pursuit of greater efficiency in their use of energy. Each site manages a set of site specific key performance indicators to track initiatives to improve its impact on the environment. Progress toward goals is reviewed regularly by their management teams and is tracked monthly. Effectiveness is measured by of their improvement efforts at each site and they utilize the Plan-Do-Check-Act cycle to manage our activities. The 1600 Johnson Way facility will implement this program when production begins.**

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

**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”](#)?

**NO**

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

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

**No hazardous waste will be produced. However, ±55 gal/mo of a non-hazardous oily sludge will be produced. This sludge will be containerized in 55-gallon drums and removed off-site and properly disposed of by Gemini Services or a similarly authorized contractor.**

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

**NO**

If yes, describe:

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

**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?

**The subject property is located within the Centerpoint Business Complex in New Castle, Delaware which is appropriately zoned as “Industrial”. Environmental scientists from Landmark Science & Engineering, Inc. investigated the subject property in April 2015 for the presence of wetlands and to assess its potential ability to support populations of state or federal rare, threatened, or endangered species.**

**Currently the subject property consists of an existing 121,246 ft<sup>2</sup> steel and masonry commercial structure surrounded by paved parking and access roads and maintained lawn areas and ornamental vegetation. A narrow hedgerow along the southern property line buffered the subject property from the adjacent active Norfolk & Southern rail line. The subject property is bordered by Johnson Way to the north, and other private developed commercial properties to the east and west.**

**No Waters of the United States or wetlands were encountered within the subject property. The state and federal combined wetland map (enclosed) is consistent with the field investigation as it depicted no wetlands within the property. Similarly, the USGS Topographic base map (also enclosed) also depicted no streams or wetlands within the subject property. No rare plant or animal species or their habitats were observed within the subject property. (The “No Wetlands/RTE” Letter Report summarizing the results of the site investigation is enclosed).**

**Landscape vegetation surrounding the existing facility included Blue-rug Juniper, Japanese Barberry, and Northern Bayberry, plus non-native ornamental trees such as Bradford Pear, Norway Spruce, Cherry, Magnolia, and Dogwood. Common vegetation observed in the hedgerow along the southern property line included Black Locust, Red Maple, Black Walnut, Black Cherry, Eastern Red Cedar, Multiflora Rose, Japanese and Bush Honeysuckle, Arrowwood, Fox Grape, Blackberry and Goldenrods.**

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

**NO There are no planned grading changes or additions to the existing building exterior or subject property.**

If yes, describe:

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

**NO There are no planned grading changes or additions to the existing building exterior or subject property.**

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?

**NO There are no planned changes or additions to the subject property. The subject property is not adjacent to, nor does it border tidal waters.**

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?

**NO The subject property and adjacent lands are developed and in commercial land use. An active railroad borders the subject property to the south. Refer to the letter in the Appendix for details.**

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)?

**NO The proposed project will be contained completely within the existing structure on an existing commercial parcel in an existing business park.**

If yes, explain:

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

**A Wetland Investigation and a Rare, Threatened, and Endangered Species Investigation was conducted on the subject property by environmental scientists from Landmark Science & Engineering, Inc. on April 21, 2015. The investigation was conducted by a Landmark Wetland Scientist and their Delaware-Recognized Qualified Bog Turtle Surveyor. The investigations concluded that the subject property consisted of a large commercial structure surrounded by paved parking and access areas, with the remaining area comprised primarily of maintained lawn areas with scattered native and non-native ornamental vegetation. A narrow isolated hedgerow dominated by native and non-native invasive species was observed along the southern**

**property boundary providing the subject property which buffered the subject property from the adjacent active rail line. No state or rare species, or their habitats, were observed within the subject property. Due to its narrow width, size, vegetation composition, and fragmentation, the on-site hedgerow provides negligible habitat value for rare or endangered species. The “No Wetlands/RTE” Letter Report summarizing the results of the site investigation is enclosed.**

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

**There are no planned grading changes or additions to the existing building exterior or subject property, and the proposed project will be contained completely within the existing structure. Therefore, no filling, dredging, or draining is needed nor planned for this project. Neither vegetation removal nor expansion of the existing impervious surfaces within the subject property are proposed.**

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

**No dredging of any kind is proposed or necessary in association with this project.**

## 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.

**Techmer intends to lease ±85,000 ft<sup>2</sup> of vacant warehouse space within a larger existing commercial structure, and retrofit the space to accommodate extruder lines and support equipment in order to manufacture plastic resin pellets. Any generated heat or noise will be contained and controlled within the structure. The process produces no glare, radiation or electromagnetic interference.**

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

**Interior heat will be controlled means on air-conditioning. Interior noise will be attenuated by the existing structure and insulation. The ventilation system utilized by Techmer, (where the fumes are collected at the ends of the extruder lines and directed into activated charcoal banks before their release), will neutralize the plastic odor thus preventing excessive odors from escaping the facility and into the atmosphere.**

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

**The project will have no effect on public access to tidal waters as no tidal waters are present within or adjacent to the subject property.**

- 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.

**In the event of a mechanical malfunction or human error, there would be no increased pollution potential. The extruder lines are electrically heated so in the event that one were to break down it would result in the shutdown of the machinery and possible product degradation. No explosive materials will be used so there is no risk of an explosion. However, flammable materials are used so a fire is a possibility. The existing space already contains a fully operational sprinkler system, and the extrusion lines utilize chilled water as a coolant. In the event of a fire, the extruders would be cooled using the chilled water and the ventilation system would filter any fumes as usual. In the event of major equipment malfunction or human error, the resulting worst case scenario would be a fire or degradation of product.**

- 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.

**A major mechanical malfunction would have no effect on the air, water, solid waste stream, or emissions as the extruder lines are electrically operated and computer-controlled and would simply shut down. In the event of major equipment malfunction or human error, the resulting worst case scenario would be a fire or degradation of product. The space already contains a fully operational sprinkler system and the extrusion lines rely on chilled water as a coolant, and the ventilation system would filter any fumes as usual.**

**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”?

**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:

- 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*”<sup>1</sup> 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.

### **Matrix is included as Attachment C in the Appendix**

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.

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<sup>1</sup> 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.

**Techmer estimated that ±25 contractors will be temporarily hired in order to retrofit the interior of the existing building. Techmer also estimated that ±75 full-time employees will be hired to work on-site once the facility is fully operational.**

- 7.2 Estimate the weekly construction payroll.

**\$14,000.00/week**

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

**\$2.1 MM**

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

**May 2015 – May 2016**

- 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).

**Techmer proposes to lease a large portion of an existing structure located within an existing business complex. No new construction, additions, or expansion of impervious surfaces are required; therefore, no adverse economic impacts are expected as there will be no loss of natural habitat or habitat quality as a result of this project.**

## 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.

**Techmer estimates that initially, about 60 employees will be reassigned from the Aston facility to the proposed project and 15 new employees will be hired locally. Techmer anticipates the need to hire an additional 15-20 new local employees in the near future due to growth and attrition.**

- 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.

**The proposed positions are intended to be full-time professional, permanent positions; not seasonal or periodic.**

- 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	0
\$10,000-14,999	0
\$15,000-24,999	0
\$25,000-34,999	44%
\$35,000-49,999	31%
\$50,000-64,999	5%
\$65,000-74,999	8%
\$75,000-99,999	8%
>\$100,000	7%

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

<b>State personal income taxes:</b>	<b>\$ 222,218</b>
<b>State corporate income taxes</b>	<b>\$ 16,394</b>
<b>County and school district taxes:</b>	<b>\$ -0-</b>
<b>Municipal taxes:</b>	<b>\$ -0-</b>

## **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 = **0**

b. Bridges = **0**

c. Piers and/or docks = **0**

d. Railroads = **0**

e. Microwave towers = **0**

f. Special fire protection services not now available = **0**

g. Traffic signals = **0**

h. Sewer expansion = **0**

i. Energy related facilities expansion = **0**

j. Pipelines = **0**

## 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).

**The proposed project is proposed for vacant space within an existing commercial structure located within an existing business park. The proposed project will be completely contained within the existing structure and will not be visible from any public road, residential area, public park, or any other public meeting place.**

- 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.

**The proposed project will be contained within the existing commercial structure, and surrounded by similar facilities within Centerpoint Buisness Complex. The subject property and surrounding lands are appropriately zoned for “Industrial” so the project is compatible with the existing land uses of the neighboring properties. No changes are proposed to the outside of the existing building which is already landscaped and regularly maintained.**

## PART 10

### EFFECTS ON NEIGHBORING LAND USES

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

**A residential subdivision is situated approximately 0.3 miles east of 1600 Johnson Way, the proposed project location. A new residential subdivision is currently being constructed to the south beyond the active rail line. However, the subject property is located within an already established business park and is not located within a residential area.**

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

**The proposed project will not interfere at all with any existing public or private recreational facilities or resources. The subject property is located within an existing structure in an existing business complex.**

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

**No. The subject property is located within an existing business complex.**

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

**No. The subject property is zoned as "Industrial" and is located within an existing business complex.**

**PART 11**  
**ATTACHEMENTS**

Attachment A; Part 5 Project Operations Summary

Attachment B; As-Built Plan denoting proposed project

Attachment C; Impact offset Matrix

Authorization Letter

Agency FOIA Letters

Wetlands and Rare Species Investigation Letter with maps and photos

## **ATTACHMENT A**

### **PART 5**

#### **PROJECT OPERATIONS**

##### **5.1**

**Techmer Engineered Solutions, LLC, (hereinafter referred to as “Techmer ES”) produces uniformed, compounded, engineering plastic pellets which are then sold to their customers, 90% of whom are injection molders. Techmer ES, a formulator/compounder company, designs each plastic resin pellet per their clients specification regarding their desired color, impact resistance, weather proofing, etc., (all of which affects the formula of each pellet product). Techmer’s manufacturing process uses long, electrically-heated, barrel extruder lines to blend melted raw materials (thermoplastic resins, glass/carbon fibers, lubricants, color concentrates, and additives), which are extruded in strands and chopped into pelletized plastics produced per customer specifications.**

**The additive concentrates used are non-hazardous organic and inorganic pigments and plastic stabilizers which are delivered to the facility in solid form as powders and/or pellets. These additives are insoluble and some are hydrophobic (water-repelling). All raw materials are delivered to the facility in sealed boxes and/or bags, providing little risk of leakage or spilling. The raw materials used will consist of thermoplastic resins that could include Nylon (an estimated 1.8 MM/year), Fiberglass (an estimated 875 K/year), ABS (an estimated 545 K/year), Acetal (an estimated 386 K/year), Polypropylene (an estimated 388 K/year), Polybutylene (an estimated 507 K/year), Polycarbonate (an estimated 206 K/year), and other similar-type resins depending on the particular product formula. The additive concentrates and raw materials are mixed, dispersed, extruded, pelletized and then packaged and shipped to customers. The final product is packaged in containers ranging from 50-lb bags to 1,100-lb boxes.**

**No explosive, thermal, toxic, corrosive, bacteriological, radiological, or hazardous materials will be used at the facility nor in the manufacturing process. The final plastic product is composed of 75% non-hazardous engineered polymers and 25% non-hazardous organic and inorganic pigments, plastic stabilizers, and product-specific enhancers.**

**The extrusion process for the proposed project is safe and clean; the fumes produced by the process are 98% steam, and these fumes will be filtered through activated charcoal banks and discharged through a ventilation system to remove any foul or offensive odors as that result from the process. The extruders melt the resin blend at temperatures typically between 500-550°F. Seven to ten extruder lines will operate in the proposed New Castle facility, and each extruder line will contain an auger, blenders and conveyors.**

**The extruder lines will vent steam and *de minimis* fugitive emissions through a ventilation system. *De minimus* emissions to the ambient atmosphere from the extruding operations will consist of primarily volatile organic compounds (VOCs) and particulate matter (PM). Emissions from the extruders is dependent on a number of factors, including the raw**

materials used (polymers and resins), operating temperature of the extruder, and number of extruders in operation; (the Aston, Pennsylvania facility currently operates 7 extruder lines and the proposed Delaware factory will operate 7 to 10 lines). A summary of the estimates of VOC and PM emissions from the Aston, PA factory is included in the attachments of this document.

According to the enclosed SCS Engineers Technical Support Document pertaining to the emissions estimates of the Techmer facility in Aston, Pennsylvania, it is assumed that the emissions produced by the proposed New Castle facility will be similar to that of the Aston facility because the same process and a similar number of extrusion lines are proposed for New Castle. The constituent resins that could be used as raw material for product manufacturing that contain emission factors are Polystyrene (0.3 VOC lb/ton material), Polypropylene (0.7 VOC lb/ton material), and Polyethylene. For Polyethylene (PE) products, the potential emissions are 19.38 lb VOC/MM lb material and 53.88 lb/MM lb material. Assuming a 6.5 MM pounds per year production level with an average extrusion temperature of 500°F, the VOC emissions for the proposed facility would be about 3,250 lbs, or 1.625 tons, per year. The estimated VOC and PM emissions from the Aston facility extrusion lines are well below the PADEP-dictated major and area thresholds.

Techmer uses recycled water in a closed-loop system as a coolant for their extruders. The relatively small amounts ( $\pm 500$  gal/yr) of non-hazardous wastewater produced will be cleaned and filtered before being discharged into the public sewer system.

Contact cooling water produces relatively small amounts ( $\pm 165$  gal/quarter) of non-hazardous oily sludge and 500 gal/quarter waste water produced will be containerized in drums and removed off-site by Gemini Services or a similarly authorized contractor. Another source of contact cooling water produces 1000 gallons daily of water that enters sanitary sewer daily after mechanical filtration.

The vacant southern and central portions comprise  $\pm 85,000$  ft<sup>2</sup> of the existing 121,246 ft<sup>2</sup> structure; this portion was previously leased to Amazon.com for an overflow product distribution facility used only during the holiday season. All machinery and equipment required for the proposed project will be new and represents an increase in productivity compared to its previous seasonal use. No new construction, additions, increases in impervious surfaces, or removal of existing vegetation are proposed for the subject property. No Waters of the U.S., wetlands, or any habitat for state or federal rare species are present within the subject property. No aboveground or underground storage tank systems are present on the subject property or required for the proposed project.

Solid waste will be accumulated in a proposed 20-yd<sup>3</sup> compactor, and an awning will be constructed over it to prevent precipitation collection in the compactor. A pump room with a main transformer will be located inside the existing warehouse where an air compressor will operate in the winter pumping warmed air inside. Other areas within the proposed facility will be conditioned by natural gas-fueled heaters.

The proposed New Castle facility will require the use of forklifts in the warehouse. Currently, half of Techmer's forklift fleet is propane-powered. As these older propane-powered forklifts are retired, Techmer intends to replace them with electric-powered

**forklifts with the long-term goal of the fleet consisting entirely of electric-powered forklifts.**

**There are no plans to alter the existing slab-on-grade, steel and masonry structure, other than minor interior changes to accommodate the proposed operations such as moving interior partitions and creating employee facilities.**

**The subject property is located within the Centerpoint Business Complex in New Castle, Delaware. The proposed Techmer facility will negligibly increase the current truck traffic within the complex and nearby roads by an estimated 4-5 trucks a day plus delivery and miscellaneous trucks, which can be easily handled by the business park roads and nearby arterial roads.**

**Techmer anticipates that in 5 years we will have a 30% increase in production and in ten years that our production will double.**



COASTAL ZONE ENVIRONMENTAL IMPACT OFFSET MATRIX

Applicant: Techmer ES  
 Project: 1600 Johnson Way  
 CZA Offset Review Reference: (DNREC Only)

Page 1 of 1  
 Application Date: May 13, 2015  
 Amendments:  
 Offset Review Date: (DNREC Use Only)  
 Matrix Amended:

ATTACHMENT C

ENVIRONMENTAL IMPACTS	(Applicant's Use) DESCRIBE ENVIRONMENTAL IMPACTS	PAGE NO.	(Applicant's Use) DESCRIBE ENVIRONMENTAL OFFSET PROPOSAL <sup>1</sup>	PAGE NO.	(DNREC Use Only) OFFSET SUFFICIENCY Yes, No or N/A
Air Quality (Applicant to List Below by Parameter)	The proposed project will produce minor VOC (1.69 tons/yr) and PM emissions (0.175 tons/yr) plus fumes.	12	Fumes will be charcoal-filtered. The <i>de minimus</i> fugitive emissions will escape into the atmosphere.	13	
Water Quality					
Surface	No expected impacts to surface water quality	15			
Groundwater	No expected impacts to groundwater quality	15			
Water Quantity					
Surface	No expected impacts to surface water quantity	15, 19			
Groundwater	No expected impacts to groundwater quantity	15, 19			
Water Use For:					
Processing	Estimated use; 1,990 to 4,045 gal/day for cooling, processes, rinsing and makeup for evaporation	19	Water will be cleaned and filtered, and discharged directly into the municipal sewer system	17	
Cooling	Estimated use; 1,990 to 4,045 gal/day for cooling, processes, rinsing and makeup for evaporation	19	Cooling water will be filtered and discharged directly into the municipal sewer system	18	
Effluent Removal	Estimated use; 1,990 to 4,045 gal/day for cooling, processes, rinsing and makeup for evaporation	19	2,000 gal/yr wastewater will be containerized in drums and removed for off-site treatment by qualified contractor	18	
Solid Waste	Solid waste materials generated will include plastic purging materials, packaging materials, floor sweepings, etc.	20	Solid waste materials will be compacted and disposed of by qualified contractor. Techmer will implement a recycling program when production begins	20	
Hazardous Waste	No hazardous waste will be generated by the proposed project	21			
Habitat					
Wetlands	No impact; the proposed project will be completely inside an existing structure in an existing business park.	22, 23, 24			
Flora Fauna	No impact; the proposed project will be completely inside an existing structure in an existing business park.	22, 23			
Drainage/Flood Control	No impact; the proposed project will be completely inside an existing structure in an existing business park.	22, 23			
Erosion <sup>2</sup>	No impact; the proposed project will be completely inside an existing structure in an existing business park.	22			
Land Use Effects					
Glare	No impact; the proposed project will be completely inside an existing structure in an existing business park.	25			
Heat	The proposed project will generate a minor amount of heat	25	Heat will be controlled by compressed air and air conditioning inside the existing structure	25	
Noise	The proposed project will generate a minor amount of noise	25	Noises will be controlled by the existing structure and insulation	25	
Odors	Proposed project will produce minor amounts of emissions	25	Fumes will be charcoal-filtered to remove odors	25	
Vibration	No vibrations are anticipated from the proposed project	25			
Radiation	The proposed project will produce no radiation	25			
Electro-Magnetic Interference	The proposed project will produce no electromagnetic interference	25			
Other Effects	No other effects are anticipated from the proposed project	25			
Threatened & Endangered Species	No impact; the proposed project will be completely inside an existing structure in an existing business park.	23,24			
Impacts From:					
Raw Material	No impact; the raw materials are inert	11			
Intermediate Products	No impact; the intermediate materials are inert	11			
By-Products	No impact is anticipated from the minor amounts of solid waste by-product materials	20			
Final Products	No impact; the final materials are inert	11			

<sup>1</sup> See paragraph I.1.b in "Secretary Assessment"

<sup>2</sup> Construction and normal operation



18420 Laurel Park Road  
Rancho Dominguez, CA 90220 USA  
+1-310-632-9211 • Fax +1-310-632-6884

2 Crozerville Road  
Aston, PA 19014 USA  
+1-610-358-9001 • Fax +1-610-358-9007

#1 Quality Circle  
Clinton, TN 37716 USA  
+1-865-425-2121 • Fax +1-865-457-9125

5/13/15

To Whom It May Concern:

Landmark Science & Engineering has been retained by Techmer Engineered Solutions to act our agent in the matter of Coastal Zone Permitting.

This authorization will last for four months from date of signature or upon completion of the Coastal Zone Permitting process whichever is sooner.

Regards,

A handwritten signature in black ink, appearing to read "Matthew H. Caruso", with a long horizontal flourish extending to the right.

Matthew H. Caruso  
Corporate Manager EHS

April 28, 2015

P6895

Kate Fleming  
Environmental Review Coordinator  
Delaware Division of Fish and Wildlife  
4876 Hay Point Landing Road  
Smyrna, Delaware 19977

**RE: TECHMER ENGINEERED SOLUTIONS PROPOSED FACILITY  
CENTERPOINT BUSINESS COMPLEX, 1600 JOHNSON WAY, NEW CASTLE, DE  
NCC TAX PARCEL NO. 21-013.00-115**

To whom it may concern:

By way of this letter and attachments we are requesting information from your database on the presence of rare, threatened and endangered species, unique natural communities, and/or any other significant natural resources in relation to the above referenced tax parcel located at 1600 Johnson Way within the Centerpoint Business Complex in New Castle, New Castle County, Delaware.

A letter from your office regarding the subject property is required as part of the Delaware Coastal Management Program's Federal Consistency Determination.

Techmer Engineered Solutions, a plastic resin production company, is proposed to lease the existing vacant warehouse building on the subject property. No new construction, new impervious cover, or vegetation removal are proposed within the subject property but the existing building will be retrofitted to accommodate the extrusion process they utilize to manufacture their product of plastic resin pellets which are then sold to injection molders. The extrusion process that will be executed within the existing building is safe and clean; the fumes produced by the process are 98% steam with the fumes deactivated by charcoal and discharged through a ventilation system. The relatively small amounts of wastewater the factory will produce (about 500 gallons/year) will be cleaned and filtered before being discharged into public sewer system. The relatively small amounts of sludge that will be produced (about 55 gallons/month) will be vacuumed sealed in drums and removed off-site by a service. No explosive or hazardous materials are involved in the manufacturing process. The final plastic product is composed of 75% non-hazardous engineered polymers and 25% non-hazardous organic and inorganic pigments, plastic stabilizers, and product-specific enhancers.

The property is currently comprised of the 121,246 square-foot warehouse, maintained lawn with landscaping, and a scrub-shrub hedgerow along its southern property boundary between the property and the Norfolk Southern railroad line. The subject lot is zoned as "21I Industrial".

This project is a high priority project to both the client (due to leasing deadlines) and to the state of Delaware (as the facility will generate both contractual jobs during the retro-fitting process and full-time jobs once it is operational). As such, there is a short time line to obtain agency letters and CZM Consistency Determination. Please feel free to e-mail me a pdf copy of your response letter so we receive it as soon as possible. Please reference this project as "Techmer ES New Castle" in all future correspondence. Should you have any questions or require additional information in this regard, please do not hesitate to contact me (302) 323-9377, ext. 136.

Sincerely,

Amy J. Nazdrowicz  
Environmental Scientist, [amyn@landmark-se.com](mailto:amyn@landmark-se.com)

Enclosures:  
Location Map  
Aerial Photographs

April 28, 2015

P6895

Delaware SHPO  
21 The Green – Suite A  
Dover DE 19901-3611

**RE: TECHMER ENGINEERED SOLUTIONS PROPOSED FACILITY  
CENTERPOINT BUSINESS COMPLEX, 1600 JOHNSON WAY, NEW CASTLE, DE  
NCC TAX PARCEL NO. 21-013.00-115**

To whom it may concern:

By way of this letter and attachments we are requesting information from your database on the presence of any historically or culturally significant resources that are recorded to be present within the above referenced tax parcel located at 1600 Johnson Way within the Centerpoint Business Complex in New Castle, New Castle County, Delaware.

A letter from your office regarding the subject lot is required as part of the Delaware Coastal Management Program's Federal Consistency Determination.

Techmer Engineered Solutions, a plastic resin production company, is proposed to lease the existing vacant warehouse building on the subject property. No new construction, new impervious cover, or vegetation removal are proposed within the subject property but the existing building will be retrofitted to accommodate the extrusion process they utilize to manufacture their product of plastic resin pellets which are then sold to injection molders. The extrusion process that will be executed within the existing building is safe and clean; the fumes produced by the process are 98% steam with the fumes deactivated by charcoal and discharged through a ventilation system. The relatively small amounts of wastewater the factory will produce (about 500 gallons/year) will be cleaned and filtered before being discharged into public sewer system. The relatively small amounts of sludge that will be produced (about 55 gallons/month) will be vacuum sealed in drums and removed off-site by a service. No explosive or hazardous materials are involved in the manufacturing process. The final plastic product is composed of 75% non-hazardous engineered polymers and 25% non-hazardous organic and inorganic pigments, plastic stabilizers, and product-specific enhancers.

The property is currently comprised of the 121,246 square-foot warehouse, maintained lawn with landscaping, and a scrub-shrub hedgerow along its southern property boundary between the property and the Norfolk Southern railroad line. The subject lot is zoned as "21I Industrial".

This project is a high priority project to both the client (due to leasing deadlines) and to the state of Delaware (as the facility will generate both contractual jobs during the retro-fitting process and full-time jobs once it is operational). As such, there is a short time line to obtain agency letters and CZM Consistency Determination. Please feel free to e-mail me a pdf copy of your response letter so we receive it as soon as possible. Please reference this project as "Techmer ES New Castle" in all future correspondence. Should you have any questions or require additional information in this regard, please do not hesitate to contact me (302) 323-9377, ext. 136.

Sincerely,

Amy J. Nazdrowicz  
Environmental Scientist, [amyn@landmark-se.com](mailto:amyn@landmark-se.com)

Enclosures:  
Location Map  
Aerial Photographs



May 4, 2015

C 2682

Techmer ES  
8 Crozerville Road  
Aston, Pennsylvania 19014

Attn: Mr. Farokh Kheradi

**SUBJECT: WETLAND AND RARE SPECIES INVESTIGATION  
FOR 1600 JOHNSON WAY  
NEW CASTLE COUNTY, DELAWARE**

Dear Mr. Kheradi:

This letter is to inform you that Environmental Scientists from Landmark Science & Engineering, investigated the aforementioned subject property for the presence of wetlands and also to assess its potential ability in supporting populations of state or federal rare, threatened, or endangered species. The investigations were conducted on April 21, 2015 in accordance with the U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual (Technical Report Y-87-1) and the Regional Supplement to the USACE Wetland Delineation Manual: Atlantic and Gulf Coastal Region.

No wetlands or waters of the United States were encountered within the subject property. No rare plant or animal species or their habitats were observed within the subject property.

The 8.55-acre subject property is located within the Centerpoint Business Complex located in New Castle, Delaware (see attached location map and aerial). The subject property is further identified as New Castle County Tax Parcel No. 21-013.00-115 located at approximately 39° 39' 33.7" N and 75° 35' 23.1" W. The subject lot is zoned as 21I (Industrial) and consists of an existing 121,246 square foot warehouse surrounded by paved parking. Landscaped lawn areas with scattered ornamental woody plants were observed along the southern and western boundaries and a narrow hedgerow along the southern property boundary. The subject property is bordered by Johnson Way to the north, warehouse buildings to the east and west, and the Norfolk Southern railroad line to the south.

Landscape plantings surrounding the building included Bradford Pear, Blue-rug Juniper, Japanese Barberry, Norway Spruce, Northern Bayberry, and non-native flowering trees such as Cherry, Magnolia, and Dogwood. Common vegetation within the hedgerow along the southern property boundary included Black Locust, Red Maple, Black Walnut, Black Cherry, Eastern Red Cedar, Multi-flora Rose, Northern Arrow-wood, Bush Honeysuckle, Japanese Honeysuckle, Fox Grape, and Blackberry and Goldenrod species. No dominant hydrophytic plant communities were observed within the subject property at the time of the investigation.

According to the USDA Web Soil Survey the subject lot is underlain completely with the Urban land (Up) soil type. The Urban land series consists of well drained soils on uplands that have been highly disturbed during urbanization and is not considered hydric by the USDA Natural Resource Conservation Service. A representative soil boring within the hedgerow area in the southern portion of the property revealed 10YR 4/3 silt loam in the upper five inches, followed by 10YR 5/4 silt loam to a depth of eighteen inches. No hydric soil conditions were encountered within the subject property at the time of the site investigation.

Elevations within the subject lot fall above and below the 35 foot contour line according to the Wilmington South 7.5 Minute USGS Quadrangle. No blue-line stream features or drainage patterns are depicted within the subject property by the quad map or were observed during the site investigation. Historically, runoff from the property was conveyed southerly off site and into Army Creek. The property was developed in the 1990's and all sheet flow runoff generated from within the subject property is conveyed to storm drains located within the paved parking areas surrounding the building. No evidence of wetland hydrology indicators were observed during the site investigation.

The combined state and federal wetland map depicts no wetlands within the boundaries of the subject lot (see attached map) which were confirmed during the field investigation. Based on the above information it is the professional opinion of Landmark Science & Engineering that no state or federally regulated wetlands or waters of the U.S. are located within the subject lot.

The hedgerow within the subject property has been fragmented as a result of the surrounding industrial development and the railroad tracks. Because of its isolation and small size (with a maximum of about 350 feet from any given edge habitat), the subject property would not offer quality breeding habitat for any forest interior dwelling species (or FIDS).

No large nests (such as those of the Bald Eagle or Osprey) were observed within the subject property.

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Techmer ES  
May 4, 2015  
Page Three

The hedgerow along the southern property boundary contains exotic/ invasive species typically associated with disturbed soils conditions. Due to the narrow width, size and fragmentation of this hedgerow, the subject property provides limited habitat value for rare or endangered species. If you have any questions please feel free to give us a call at (302) 323-9377.

Sincerely,



William S. Twupack  
Environmental Scientist  
Extension 151, [willt@landmark-se.com](mailto:willt@landmark-se.com)



Amy J. Nazdrowicz  
Environmental Scientist, DE Recognized Qualified Bog Turtle Surveyor  
Extension 136, [amyn@landmark-se.com](mailto:amyn@landmark-se.com)

Enclosures:   Location Map  
                  USGS 7.5 Minute Topographic Map  
                  2013 Aerial Photograph  
                  Combined State and Federal Wetlands Map  
                  USDA Web Soil Map  
                  Historical Aerial Photographs  
                  Representative Site Photographs



Location Map



Wilmington South 7.5' USGS Quadrangle Map



USDA Web Soil Survey



State & Federal Wetland Map



Aerial Photograph (2013)





1600 Johnson Way  
Aerial Imagery - 1954



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100 W. Commons Blvd.  
New Castle, DE 19720  
302-323-9377



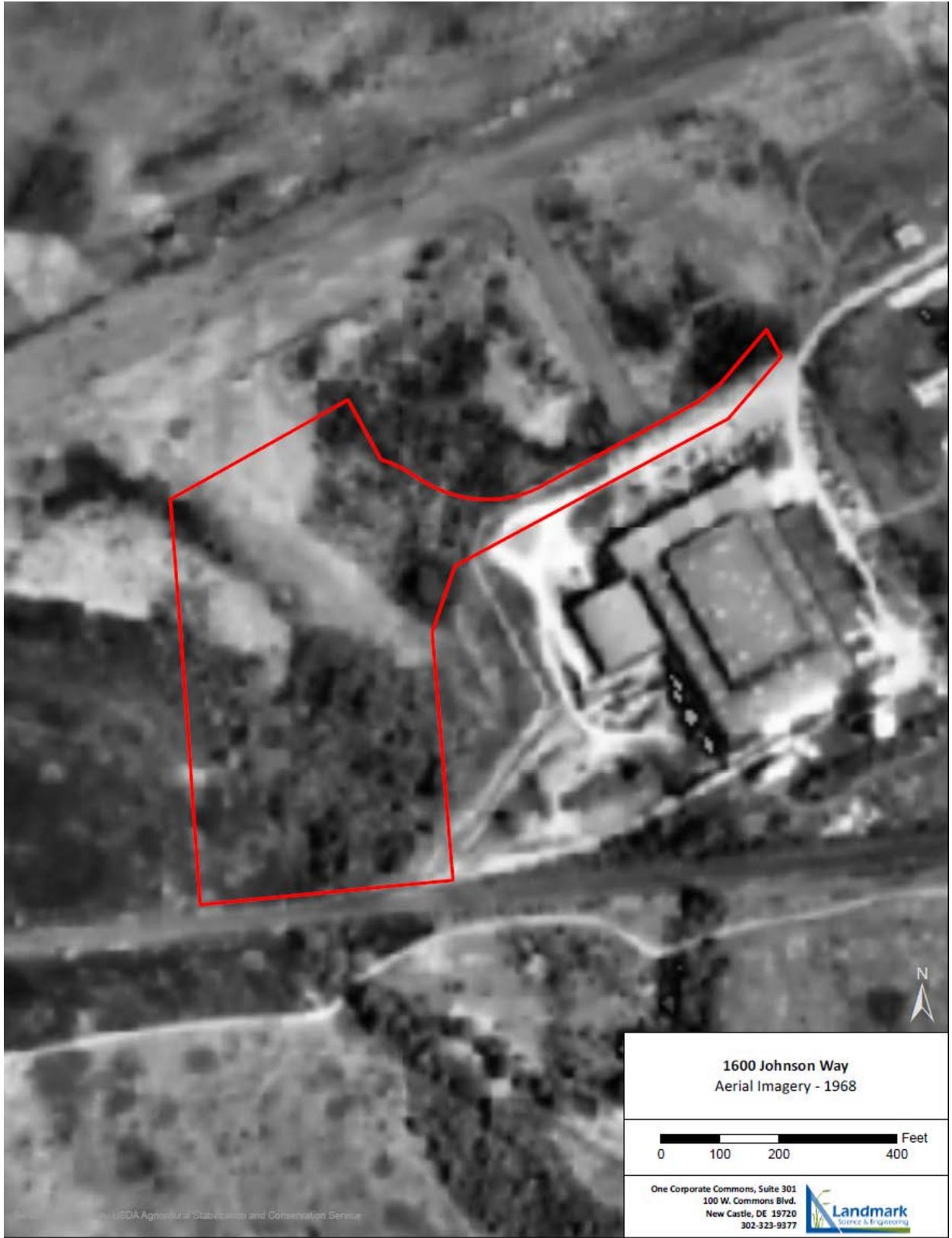


1600 Johnson Way  
Aerial Imagery - 1961

0 100 200 400 Feet

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1600 Johnson Way  
Aerial Imagery - 1968



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Service Layer Credits: EarthData/PhotoScience Inc.

**1600 Johnson Way**  
Aerial Imagery - 1992

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1600 Johnson Way  
Aerial Imagery - 1997



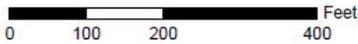
Service Layer Credits: State of Delaware Department of Transportation and EarthData

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**1600 Johnson Way  
Aerial Imagery - 2002**

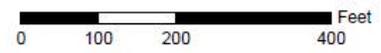


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**1600 Johnson Way**  
Aerial Imagery - 2007

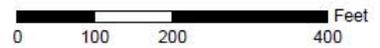


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1600 Johnson Way  
Aerial Imagery - 2011



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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



1600 Johnson Way  
Aerial Imagery - 2012

0 100 200 400 Feet

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View looking north at paved parking area in the western portion of the subject property.



Loading dock on the eastern side of the building.



Typical landscaping on the west side of the building.



Lawn area in the northern portion of the property.



View looking west along hedgerow in the southern portion of the property.



Stormwater outfall located in the southeastern portion of the property.