APPLICATION FOR A COASTAL ZONE ACT STATUS DECISION

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

July 2018

Delaware Storage and Pipeline Company
Jet Fuel Additive Project
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CZA Status Decision Application Instructions

1. Complete all parts of the application. For questions 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 question number.

3. Submit eight complete hard copies of the application to:

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

   In addition to the eight hard copies, submit a complete electronic “pdf” copy of the permit application 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 Status Decision 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 August 31, 2007. 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 Status Decision Application and in any attachments is true and complete to the best of my belief.

I 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.

Delaware Storage and Pipeline Co.
Print Name of Applicant

[Signature]
Signature of Applicant

President
Title

7-16-2018
Date
PART 2

APPLICANT INFORMATION AND SITE IDENTIFICATION

2.1 Identification of the applicant:

Company Name: Delaware Storage and Pipeline Company
Address: 987 Port Mahon Road, Dover DE
Telephone: 302-736-1774
Fax 302-734-2749

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 status decision.

Charles Denault, President
603-886-7300
C_denault@bartmgt.com

2.3 Site of proposed project (if different than above):

2.4 Authorized agent (if any):

Name: Duffield Associates
Address: 5400 Limestone Road, Wilmington, DE 19808
Telephone: 302-239-6634
Fax: 302-239-8485

If you have an authorized agent for this status decision process, provide written authorization from client for being the authorized agent.
Please see Attachment 1

2.5 Is the applicant claiming confidentiality in any section of their application?
YES
NO

If yes, see instructions on page 3.
PROJECT SUMMARY

Provide a one-page summary describing the proposed project or use. Include a brief quantitative description of any anticipated environmental impacts.

Overview

Delaware Storage and Pipeline Company (DSPC) is located at 987 Port Mahon Road, Dover, Delaware. The facility consists of a tank farm, pipeline and dock and serves as the sole provider of jet fuel for Dover Air Force Base, located in Kent County, Delaware. The facility and supporting infrastructure are located on four parcels totaling 46.94 acres. The facility is identified under the Coastal Zone Act Regulations as a non-conforming bulk product transfer facility.

The Department of Defense (DOD) is currently using fuel that contains three additives for safety and operational purposes and fuel delivered to and stored at DSPC contains these additives. DOD is now seeking the ability to purchase commercial jet fuel locally and on the spot market and introduce these same additives at DSPC and other similar bulk facilities that supply fuel. DOD jet fuel contracts can vary from year to year among suppliers and this will allow DOD to bring consistency and cost effectiveness to its fuel delivery and handling systems by requiring that facilities such as DSPC have the equipment on site to add these products into their fuel delivery systems.

The jet fuel that is currently delivered to and stored at DSPC contains these additives:

- Icing inhibitor -- SDSFSII – Diethlyene Glycol Monoethyl Ether (Dice Flash 190)
- Anti-static agent -- SDS Stadis 450
- Corrosion inhibitor -- DCI 4A 5050

The jet fuel with additives allows it to meet North Atlantic Treaty Organization standards and is designed to enhance safety and operations. In addition to preventing jelling of fuels in extreme cold, the anti-icing agent also prevents the buildup of microbes in the fuel.

The anti-corrosion additive prevents the corrosion of internal components of metals that carry the jet fuel. This includes not only equipment on the aircraft but also has the additional benefit of protecting the storage tanks, pipelines, filtration vats and pump stations. The anti-static additive keeps the jet fuel stable, or as stable as possible for loading, off-loading, transportation and or handling uses, including at DSPC.

A pre-fabricated, double-hulled, horizontal 12,000 gallon tank will be installed in the existing tank farm, surrounded by a containment berm and will be used for storage of Dice Flash 190. The tank will be placed on a concrete foundation and above a 10 foot by 40 foot concrete pad. Dice Flash 190 is 99% diethylene glycol monomethyl ether, CAS 111-77-3. As shown on its material safety data sheet, this material has a specific gravity of 1.021 and a vapor density of 4.16. As such, the liquid material is slightly more dense than water, while its vapors are significantly more dense than air.

A new 480-sq ft. metal building will be constructed in the existing tank farm area to hold separate 250 gallon totes for storage of anti-static and corrosion inhibitor and other equipment. The anti-static agent and corrosion inhibitor will be delivered to the facility by
truck in 55 gallon drums. The additives will be mixed with jet fuel in the totes to decrease viscosity of each to allow the gravity feed to flow easier. The Dice Flash 190 will be delivered via tanker truck (approximately 5,000 gallons). The additive will be offloaded from tanker through a header and via flex delivery hose that will connect to a pipeline. As Dice Flash 190 is pumped into the storage tank, air from within the tank will be displaced by the heavier Dice Flash 190, allowing the displaced air to escape through an atmospheric vent on the tank while the liquid and any vapors remain in the tank. Expected delivery is one tanker no more than every six weeks but can vary depending on fuel usage at DAFB.

All three additives will be injected into the receipt line that transfers jet fuel as barges are being offloaded. The main and most used additive will be Dice Flash 190. Additives from all three containers will be injected into the closed system receipt line as the receiving product is flowing. Injection will be by a fluid-powered injector, which is gravity fed.

**Environmental Impacts**

The physical properties of Dice Flash 190 are such that there are no expected emissions to the environment during tank filling. The injection of Dice Flash 190 will be made in a sealed pipeline, with no realistic potential for releases or emissions of Dice Flash 190 to enter into the environment under normal operations. The design of the injection system is such that there are no expected emissions to the environment during tank emptying.

Similarly, the Stadis 450 and DCI 4AA 5050 will remain in sealed 55-gallon drums which will be housed in the metal building. No air or water emissions are expected. No wetlands impacts will result from any activity associated with the project and no disruption to drainage is anticipated. There will be no impact on groundwater or surface waters and no effect on threatened or endangered species.

Minor, temporary soil disturbance will occur in conjunction with tank and pipeline installation and building construction. Land disturbance area is expected to be less than 5,000 square feet.
PROJECT INFORMATION

4.1 Is the proposed project entirely or partly a new, or improved, or extended pier or other ship docking facility?
YES
NO

If yes, will it be used at least in part for bulk cargo transfers by the applicant?
YES
NO
N/A

If no, please explain what it will handle:

4.2 Is this project entirely for pollution control purposes?
YES
NO

4.3 Is this project a new research and development facility?
YES
NO

4.4 Is this project a new or expanding (flow rate) public sewage wastewater treatment plant?
YES
NO

4.5 Will the proposed project meet the following definition of “Manufacturing” as found in the Coastal Zone Act: “Manufacturing means the mechanical or chemical transformation of organic or inorganic substances into new products, characteristically using power driven machines and materials handling equipment, and including establishments engaged in assembling component parts of manufactured products, provided the new product is not a structure or other fixed improvement.”
YES
NO

If no, explain what kind of activity will be carried out at this project site:

Please see Part 3 Project Summary

4.6 Will the project have the following equipment or facilities?
a. Smoke stacks  YES  NO
b. Tanks  YES  NO
c. Distillation or reaction columns  YES  NO
d. Chemical processing equipment  YES  NO
e. Scrubbing towers  YES  NO
f. Pickling equipment  YES  NO
g. Waste treatment lagoons  YES  NO
h. Smelters  YES  NO
i. Incinerators  YES  NO

4.7 Will the project use 20 acres or more?
YES
NO

How many acres will it use?  Less than 5,000 square feet

4.7 Does this facility appear in Appendix B of the Coastal Zone Act Regulations (the list of the nonconforming uses)?
YES
NO

If no, proceed to question 4.11

4.8 Will the proposed activity described in this application occur entirely within the lines delineating the area of nonconformity for this site, as seen in the Appendices of the Regulations?
YES
NO
N/A

4.9 Will the proposed activity or use straddle this line?
YES
NO
N/A

If yes, describe what equipment, facilities, or machinery will be within the delineated area of nonconformity AND what will be outside of this area of nonconformity:
4.10 Is the proposed project or use part of a manufacturing use that was in operation prior to and on June 28, 1971?
YES
NO

4.11 Has this facility ever been granted a Coastal Zone Act Permit?
YES
NO

If yes, please provide the following information:

<table>
<thead>
<tr>
<th>Applicant Name</th>
<th>Permit Number</th>
<th>Date Issued</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>

4.12 Does the new or expanded use involve any change in existing:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
</table>
a. processes? |     |    |
b. facilities? |     |    |
c. buildings? |     |    |
d. emissions discharge? |     |    |

If yes, please explain each in detail. Use the following tables to help describe any new or changed air or water emissions: Please see Section 3 Project Summary

### Air Emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Existing Emissions</th>
<th>Net Increase/Decrease</th>
<th>New Total Emissions</th>
<th>Percent Change (compare tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lbs/day</td>
<td>Tons/year</td>
<td>Lbs/day</td>
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</tbody>
</table>

### Water emissions

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Current Discharge Concentration (ppm)</th>
<th>New or Changed Discharge Concentration (ppm)</th>
<th>Current Discharge</th>
<th>Net Increase/Decrease</th>
<th>al ns</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lbs/day</td>
<td>Tons/year</td>
<td>Lbs/day</td>
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</tr>
</tbody>
</table>
4.13 Will this project directly or indirectly increase plant production over present capacity?
YES
NO

If yes, explain in what way and by how much:

4.14 Will this project result in the production of any new products, either directly or indirectly, at this facility?
YES
NO

If yes, list each new product:

4.15 List materials and/or ingredients to be utilized by this proposed project and how they will be transported to the site. Please see Part 3 Project Summary

PART 5
PROJECT SITE AND ZONING

5.1 In a separate attachment, provide a map of appropriate scale to clearly show the site. Mark important natural features and project buildings and processing equipment of the proposed project such as roads, wetlands, railway sidings, drainage ways, tanks, sewer systems, water mains, wells, etc. Please see Attachment 2

5.2 What is the current SIC code for the proposed use?
SIC Code 4226

5.3 What is the current zoning and planned land use of the proposed project site? General Industrial

5.4 Will the proposed project require a zoning change?
YES
NO

If yes:
A. To what classification will it be changed?
B. What zoning authority is responsible for reviewing and approving the change?

5.5 Will this project require new supporting facilities?
   YES
   NO

   If yes, describe each facility, and how it will be used:

   The proposed project will require the construction of a 20 ft. by 24 ft. metal building and the installation of a pre-fabricated, double-hulled, 12,000 gallon horizontal steel tank and associated piping. The tank and piping will be installed above ground and the tank will be placed in a concrete foundation above a 10 ft by 40 ft. concrete pad. Both the building and tank will be located inside the berm that surrounds the larger tank farm. The tank will be used to hold the anti-icing agent Dice Flash 190. Piping will allow for filling of the tank by tractor/trailer (5,000 gallon) and will be connected to pipeline containing jet fuel. A concrete pad will be constructed to accommodate the tractor/trailer while it is offloading Dice Flash 190. The additive will be injected using a liquid flow pump system that is driven by the flow of the jet fuel moving through the pipeline to insure that the additive is injected at the appropriate rate and quantity to obtain blending at required ratios.

   Containers (55-gallon drums) of the anti-corrosive and anti-static additives, along with totes, pumps and lines, will be housed in the metal building. The interior floor of the building will be concrete slab and will be constructed with a raised berm around the outside perimeter of the floor in order to contain any spills or releases of the additives inside the building.
PART 6
PROJECT DESCRIPTION AND PROJECT IMPACTS

6.1 On a separate attachment labeled “Project Description,” provide a concise but complete description of the proposed project or use. Be sure to answer the following questions:
   a. How does the project relate to any existing manufacturing operations and facilities (if this is not for an entirely new manufacturing plant)?
   b. What effects will there be, if any, on land use acreage, manufacturing production capacity, modification of current product line(s), and safety risks to the public and to company employees?
   c. Is this project or use a complete, single project, or is it part of a long-term, large-scale project that has other components to it that may need approval under the Coastal Zone Act at a later date?
   d. If it is part of a larger project, describe the entire project in detail and mention ALL major machinery, facilities, land, products, and processes involved.

6.2 On a separate attachment labeled “Environmental Impacts,” provide a detailed and accurate impact analysis that describes the proposed project’s impacts on:
   a. air quality
   b. local surface and ground water quality
   c. surface and groundwater withdrawals
   d. habitat loss
   e. solid and hazardous waste generation
   f. noise
   g. odors
   h. local aesthetic quality
   i. any other notable factors not listed above
   j. Provide a detailed statement describing the proposed project’s potential to pollute should equipment malfunction or human error occur, including a description of backup controls, backup power, and safety provisions.

6.3 On a separate attachment labeled “Other Project Impacts,” provide a detailed and accurate analysis on how the proposed project will impact each of the following (include both positive and negative impacts):
   a. the economy (corporate, state, county)
   b. county and municipal comprehensive plans/ zoning
   c. effect upon neighboring land uses
   d. the impacts, if any, that supporting facilities will have on: the environment; economics of the area; zoning; neighboring land uses; and aesthetic quality.
**Project Description**  
(Refer to Question 6.1)

The Delaware Storage and Pipeline Company (DSPC) is proposing to install a new above ground storage tank, small metal building and equipment designed to implement Department of Defense requirements to inject three additives into jet fuel that is delivered to the DSPC facility located on Port Mahon Road, Little Creek, Delaware.

The facility transfers bulk products and was in operation prior to the passage of the Coastal Zone Act in June, 1971. The proposed project does not expand the existing footprint of the site and is not an expansion of the non-conforming use as a bulk product transfer facility. The amount of jet fuel barged to and stored at the facility will not increase beyond historic operational ranges. No additional storage for jet fuel is being proposed.

Necessary equipment to inject the additives include a double-hulled 12,000 gallon above ground storage tank, a 20 ft by 24 ft. metal storage building to hold two, 250 gallon storage totes and related equipment. The tank will be constructed on a proposed 40 ft. by 10 ft. concrete pad and will be used for storage of the anti-icing agent Dice Flash 190. No discharges to the environment are expected from storage or transmission of the additives due to the closed nature of the systems.

The project will not increase any safety risk to the public. The project allows additives presently blended in jet fuel that is currently delivered to and stored at the site to be added on site. The additives are designed to enhance safety and operations of aircraft and have the added benefit of also protecting pipelines, tanks, pumps and related equipment associated with storage and transmission of the fuel.

The anti-icing agent prevents the jelling of fuel in extreme cold and also prevents microbes in the fuel. The anti-corrosion additive prevents the corrosion of internal components of metals that carry the jet fuel. This includes not only equipment on the aircraft but also storage tanks, pipelines, filtration vats and pump stations. The anti-static additive keeps the jet fuel stable, or as stable as possible for loading, off-loading, transportation and or handling uses, including at DSPC.

The project is anticipated to be a one-time, stand-alone project that is not part of a larger project that may require additional Coastal Zone Act permitting in the future.
Environmental Impacts
(Refer to Question 6.2)

Environmental impacts from the project are expected to be minimal and temporary related to soil disturbance during construction and installation of equipment. Operation of the additive systems will not have any emissions to air or water under normal conditions.

Air quality -- Due to the physical properties of Dice Flash 190 and the closed nature of the storage tanks and piping systems, there are not any expected air emissions during either filling of the 12,000 gallon storage tank or injection of the additives into jet fuel.

Local surface and groundwater quality – No impacts to water quality are expected. The area of land disturbance during construction is expected to be less than 5,000 square feet and therefore falls beneath the threshold for erosion and sediment and post-construction stormwater management controls.

Habitat loss – the construction and installation of the AST and building will occur within the existing infrastructure of the tank farm and therefore no habitat will be lost.

Solid and hazardous waste generation – No hazardous waste will be generated from the operation. The 55-gallon metal drums which will contain the corrosion inhibitor and anti-static agent will be removed from the site and recycled.

Noise – There is not expected to be an increase in noise from the facility.

Odors – There is not expected to be any odors generated from the additive storage and delivery systems.

Local Aesthetic Quality – The improvements that are planned are in keeping with the existing general industrial zoning for the site and the existing infrastructure of the tank farm and no changes to the local aesthetic quality is anticipated.

Potential Environmental Impact – The 12,000 gallon above ground storage tank will be double hulled to minimize the potential for a release and will be registered under Delaware’s Aboveground Storage Tank regulations. The tank will be installed on a concrete foundation and will be located above a 10 ft. by 40 ft. concrete slab to assist in leak detection and reduce the amount of product from impacting surrounding soils and groundwater in the event of a leak. All piping will be located above ground to allow for regular inspections and prompt identification of any leaks or spills. The tank will also be equipped with an air dryer using a highly efficient dessicant material to extract moisture and prevent it from entering the tank. The Safety Data Sheet for Diethlyene Glycol Monoethyl Ether states that the product is not classified as environmentally hazardous and that there is no known data on mobility in soil.

The totes and drums that will contain anti-static and corrosion inhibitor will be stored and utilized in the metal building which will be constructed with a raised concrete berm around the perimeter of the concrete slab floor to contain any release. The liquid flow pumps operate on the gravity flow of product through the lines and do not require any electricity or any backup power. Personnel will be
on site to operate and monitor equipment during filling of the AST and during barge offloading when additives are injected into the jet fuel. The Spill Prevention and Control and Countermeasure and Facility Plan will be updated to reflect the installation of the tank and new equipment. Tier II reporting will be updated to include the additives. According to Safety Data Sheets, both anti-static agent SDS Stadis 450 and Corrosion inhibitor DCI 4A 5050 are toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.
Other Project Impacts
(Refer to Question 6.3)

Fuel delivery to Dover Air Force Base (DAFB) must be reliable, efficient and affordable to maintain readiness. The sole platform for fuel delivery to DAFB is DSPC’s Port Mahon facility. The proposed project will implement the infrastructure designed to meet Department of Defense requirements to bring consistency and efficiency to its fuel delivery systems in a more cost-effective manner including acquisition of jet fuel from local sources.

DAFB is a significant economic driver for Delaware and Kent County. According to the USAF web site Mybase.com., DAFB total resources are estimated at $5.7B with total economic impact estimated at $466M within a 50-mile radius including payroll, retiree pay and local contracts. The military workforce is estimated at 6,100 with 3,200 active duty personnel, 1,800 reservists and 1,100 civilians.

The facility is currently zoned General Industrial and isolated from other improved properties as the site is surrounded by open space owned by the State of Delaware. The facility has been in operation since 1960 and the project is not expected to have any impacts on neighboring land uses.

END OF APPLICATION

ATTACHMENTS TO FOLLOW
ATTACHMENT 1

AUTHORIZED AGENT
July 19, 2018

David Small
Duffield Associates, Inc
5400 Limestone Rd.
Wilmington, De 19808

Re: Coastal Zone Status Decision
Agent Authorization

Dear David,

This letter authorizes Duffield Associates Inc. to act as our agent with DNREC on matters relating to our CZA status decision application for the proposed Delaware and Storage and Pipeline Co Port Mahon project.

Sincerely,

[Signature]
Charles Denault
President
ATTACHMENT 2
SITE PLAN