



DELAWARE DEPARTMENT OF  
**NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

**APPLICATION FOR A COASTAL ZONE ACT PERMIT**

**Division of Climate, Coastal and Energy**

North Fish USA Inc 200  
Centerpoint Boulevard  
July 14 , 2025

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### Permit Application Instructions

1. Complete all parts of the application. If a section is not applicable to your project, **state why; do not leave it blank**. Each answer should contain enough information to stand alone without having to reference other parts of the application. Do not provide responses to multiple sections in a narrative form. Instead, please provide responses in the spaces provided for each section.
2. Include all attachments **required** by this application at the end of this application in an Appendix, labeling it "Appendix 1" Part 11 of the application provides a shorthand list of these required attachments. Please provide these attachments in that order.
3. Please provide all other supplemental attachments in a sperate Appendix, labeling it "Appendix 2". This can include references, data, and other documentation not specifically listed to support any analyses and adequately respond to the application.
4. Submit an Environmental Permit Application Background Statement as an attachment to this application (if applicable), pursuant to [7 Delaware Code, Chapter 79 §7902](#).
5. Include an environmental impact statement, certified by a Delaware registered professional engineer or professional geologist, shall be submitted with the permit application and shall contain, at a minimum, an analysis of all items listed under [7 Del. Admin. Code 101 Section 8.2](#)
1. Submit one electronic copy to [CZA\\_Program@delaware.gov](mailto:CZA_Program@delaware.gov). If you are unable to submit electronically, send a hard copy, CD, or USB to:

Coastal Zone Act Program  
Department of Natural Resources and Environmental Control  
Division of Climate, Coastal and Energy  
100 W Water Street, Suite 7B  
Dover, DE 19904

6. Include documentation for payment of the application fee. Acceptable payment types are ACH, money orders, or checks. Make checks payable to "State of Delaware".
7. Be advised that the application for a Delaware Coastal Zone Act Permit is a public document, which will be displayed on the internet. 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.
8. An application will not be considered administratively complete until all required documentation has been provided and all parts of the application are complete and substantive, including a sufficient offset proposal.

### Part 1. Certification by the Applicant and Engineer

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.

Nikita Borisenko, North Fish USA Inc.

\_\_\_\_\_  
Print Name of Applicant



\_\_\_\_\_  
Signature of Applicant

Chief Operating Officer

\_\_\_\_\_  
Title

07/14/2025

Pursuant to 7 Del. Admin. Code 101 Section 8.2, I hereby certify that 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.

Douglas Seavey P.E.

\_\_\_\_\_  
Print Name of Professional Engineer or Professional Geologist



\_\_\_\_\_  
Signature of Professional Engineer or Professional Geologist

07/14/25  
\_\_\_\_\_  
Date

## Part 2. Applicant Information and Site Identification

### 2.1 Identification of the applicant

Company Name: North Fish USA Inc  
Address: 2601 John P. Lyons Lane, Unit A  
Pembroke Park, FL 33009  
Phone Number: 954-251-2021  
Fax: none

### 2.2 Primary Contact: Preferred contact for your company in case DNREC needs to contact you regarding this application

Name: Timothy Tkachenko.  
Phone Number: 954-251-2021  
Email: Sales@Northfishusa.info

### 2.3 Authorized agent (if any): Provide written authorization from client to authorized agent

Name: Douglas Seavey, P.E.  
Affiliation: Landmark Sciences and Engineering  
Address: 200 Continental Drive, Suite 400, Newark DE 19713  
Phone Number: 302-323-9377 ext 147  
Fax: 302-323-9461 Email: DougS@Landmark-SE.com

### 2.4 Project property location (street address, parcel number(s))

200 Centerpoint Boulevard  
New Castle Delaware. 19720  
Tax Parcel 21-013.00-103

### 2.5 Map of appropriate scale to clearly show the project site. **(Provide as attachment)**

**Attachment A is in the rear of the package.**

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

Yes ☐

No ☒

If yes, refer to the instructions on page 3.

### **Part 3. Property Record and Evidence of Local Zoning and Planning Approval**

#### **3.1 Project Property Record**

3.1.1 Name and address of project premises owner(s) of record

**Centerpoint 200 LLC  
2710 Centerville Road, Suite 104  
Wilmington DE 19808**

3.1.2 Name and address of project premises equitable owner(s)

**Centerpoint 200 LLC  
2710 Centerville Road, Suite 104  
Wilmington DE 19808**

3.1.3 Name and address of lessee(s)

**North Fish USA Inc  
Address: 2601 John P. Lyons Lane, Unit A  
Pembroke Park, FL 33009**

3.1.4 Is the project premises under option by permit applicant?

Yes ☒

No ☐

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

**21I Industrial**

3.2 Evidence of Local Zoning and Planning Approval

I, Jeffrey A. Bergstrom, for The City of New Castle Delaware  
(County, City, or Town)

do hereby affirm that the project proposed by

North Fish USA Inc  
located at

200 Centerpoint Boulevard  
\_\_\_\_\_

in 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.

  
\_\_\_\_\_  
Signature

Building Official

\_\_\_\_\_  
Title

April 1, 2025

\_\_\_\_\_  
Date

*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 contain the same information above and are signed and dated by the proper official.*

## **Part 4. Project Construction and Operations**

- 4.1 Describe the step-by-step procedures or processes for site operations. Provide a flow diagram as an attachment to illustrate procedures.

**A process flow diagram with a detailed description of operations is in Attachment B in the rear of the package.**

- 4.2 Describe the characteristics of all products utilized by the proposed project. Include in the description (using attachments, if necessary):
- the raw materials, intermediate products, byproducts, 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 safety data sheets (SDS) if available

**The materials that are used are raw fish, water, salt and hickory wood chips. The final product is smoked fish. The items have no known risk of carcinogenicity, toxicity, mutagenicity, or smog formation potential. The available SDS sheets for these products are in Attachment C.**

**Approximately 420 pounds of salt is used per day to make brine. This is then discharged to the sewer system, except for any which is adsorbed into the fish.**

- the nature of the materials mentioned above in 4.2(a) as to whether the materials require special means of storage or handling

**Fresh fish is kept under refrigeration to keep it fresh.**

**If arriving frozen, the fish is immediately placed in frozen storage until needed for processing. The frozen storage is the only special handling equipment that North Fish has.**

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

**There are no underground storage tanks at the facility. There are approximately 40 aboveground vats which are used to defrost fish and to brine fish. Each of these vats holds approximately 250 gallons of water.**

- the maximum production rate

**North Fish will process 5-10 metric tons (5.5 to 11 tons) of fish per day. Eighty to ninety percent of the fish processed will end up as finished product for sale, so a maximum production rate would be nine tons of fish per day for final sale.**

- 4.3 List the machinery (new and/or existing) to be utilized by this project.

**The existing equipment is the industrial freezer and cooler that will be used to hold the raw and finished fish.**

**The new equipment will be:**

**Two electric pallet jacks.**

**Two electric fork lifts.**

**Boleto Gutting Machine will be used to remove organs from the raw fish.**

**Fish slicer is used to cut fish.**

**Vats are the plastic vats which are filled with water and used to thaw frozen fish and to brine the fish.**



**Fish racks are used to hold the fish for smoking.  
Maurer Cage Smoker is filled with smoke and used to smoke the fish.  
Fessman Four Cage smoker is filled with smoke and used to smoke the fish.  
The Ultravac 2100 is used to vacuum pack the processed and smoked fish.  
Additional information on each of these devices is in Attachment J.**

**A Smoki Smoke Zapper 300 wet scrubber will be used to reduce air emissions. Information on it is contained in Attachment K.**

- 4.4 Provide evidence that the applicant has, or will have, the ability to maintain and utilize all pollution control equipment/management techniques in a consistently proper and efficient manner (for example, college transcripts, certifications, records of training courses, summary of experience of person(s) responsible for maintaining the equipment, and/or copies of contracts with companies to be responsible for maintaining and utilizing this equipment) as attachments.

**The Smoki 300 Smoke Zapper for smoke control requires very little maintenance. It is filterless, and uses water to capture smoke particles which are then sent to the drain. The smoke control equipment does not require any specialized training and there is no licensure.**

- 4.5 List any new buildings or other facilities to be utilized

**The existing industrial building at 200 Centerpoint Boulevard will be used, with the associated parking areas.**

- 4.6 Describe daily hours of plant operations and the number of operating shifts.  
**12 hours per day, 6 days a week (Monday-Saturday from 6:00am to 6:00pm).**

- 4.7 How many acres of land in total are required for this proposed project?  
a. Existing/currently utilized/developed land:

**The total area being leased is approximately 2.1 acres. Approximately 1.8 acres of it is developed, with approximately 1.0 acres being a parking area and 0.3 acres being vegetated. The building that North Fish will be using is 17,496 . Adjacent portions of the building are leased by others. The project site plan and an aerial image are in Attachment D in the rear of the package.**

- b. New land:

**No new land will be used or developed as part of this project.**

- 4.8 Provide a site plan of this project as an attachment to this application 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 the entire property
  - f. lines designating the proposed project area for which this application is being filed, 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
- i. existing and proposed drainage ways, gas, electric, sewer, water, roads, and other rights-of-way

**An ALTA survey is included in Attachment D, at the end of the submission package.**

- 4.9 Provide a project timeline for the completion of the proposed project as an attachment to this application.

**The timeline is in Attachment E in the rear of the package.**

- 4.10 Provide information regarding other coordination with the Department, including additional permits applied for as part of the proposed project as an attachment to this application.

**The DNREC Air Quality Group has indicated that the air emissions will need to be registered. Landmark has submitted the registration and been informed it will be approved as soon as the Coastal Zone permit is issued. A Conditional No Exposure Permit was received from DNREC Division of Water stating that no Industrial Stormwater Permit is required for the facility, and it included as Attachment M. New Castle County has written that no sewer permit would be required for the wastewater. This email is included in Attachment N.**

## Part 5. Environmental Impact of Proposed Use

Submit an Environmental Permit Application Background Statement as an attachment to this application (if applicable), pursuant to [7 Delaware Code, Chapter 79 §7902](#). Please also attach an environmental impact statement, certified by a Delaware registered professional engineer or professional geologist.

Describe environmental impacts of the proposed project for each of the following factors:

### 5.1 Air Pollution

5.1.1 Complete the chart below and describe project emissions (new, as well as any increase or decrease over current emissions) by type and amount under maximum operating conditions.

**The only air emissions will be wood smoke from the smokers. Calculations on the emissions are in Attachment H. Annual tonnage is based on 6 days of operation per week, 52 weeks per year. The maximum emissions are based on 200 pounds of wood per day, while the typical amount would be 100 pounds of wood per day, or half of the numbers below.**

The large discrepancy between woodchips used per day (i.e. between 100 and 200lbs per day) is due to the seasonality of North Fish's business. For example, fish consumption nearly doubles towards holidays like Christmas and Easter (200lbs burned per day), while substantially slumping in the summer months (when 100lbs of chips are burned, per day). It is estimated that, on average, the company will burn 150LBS of woodchips per day – 100LBS/day for 6 “slow” months, and 200LBS/day for 6 “busy” months.

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	
Maximum PM 2.5	0	0	1.643	0.26	1.643	0.26	100%
Maximum VOC	0	0	0.66	0.10	0.66	0.10	100%
Typical PM2.5	0	0	0.82	0.13	0.82	0.13	100%
Typical VOC	0	0	0.33	0.05	0.33	0.05	100%

For the pollutants emitted from a wood fire in a smoker and their volumes emitted, DNREC Air Permitting Branch directed Landmark to use US EPA Publication AP-42, which is in Attachment H. The only pollutants that the US EPA Publication AP 42 directed to include in the emissions were PM and VOCs. The PM is almost entirely PM2.5 or lower, and the VOCs should be modeled as methane per the AP 42. There should be no CO emissions due to the temperature of the smoker. These emissions includes a 69% reduction in particulate matter and a 85% reduction in volatile organic compounds due to the wet scrubber, based on values AP-42 (in Attachment H). The wet scrubber manufacturer claims a 95% reduction in PM, but the lower values were used to be conservative. All of the calculations are in Appendix H and the wet scrubber information is in Appendix K.

5.1.2 Describe how the above emissions change in the event of a mechanical malfunction or human

**In the event of a mechanical malfunction of the smoke Smoke Zapper system, the PM emissions would increase by approximately 69% and the VOC emissions by 85%.**

- 5.1.3 Describe any pollution control measures to be utilized to control emissions to the levels cited above in 5.1.1.  
**The Smoke Zapper system is a wet scrubber that works to reduce the emissions from the smoker.**

## 5.2 Solid Waste Generation

- 5.2.1 Will this project result in the generation of any solid waste?  
 Yes ☒  
 No ☐  
 If yes, describe each solid waste type and volume (including biowastes) generated by this project and the means used to transport, store, and dispose of the waste(s).

Pollutant	Existing Waste Generation		Net Increase/Decrease		New Total Waste		Percent Change (compare tons/year)
	Lbs/day	Tons/year	Lbs/day	Tons/year	Lbs/day	Tons/year	
Organic fish waste	0	0	660	103	660	103	100%
Cardboard and Styrofoam	0	0	1100	171	1100	171	100
Miscellaneous office waste	0	0	20	3.1	20	3.1	100

**The organic fish waste will be disposed of in a dumpster and removed twice daily by Waste Management, an outside contractor.**

**The miscellaneous generated will be typical household waste which will be collected by a trash collection service. As much of it as possible will be separated for off-site recycling. The cardboard and Styrofoam will be transported to a single-stream recycling facility.**

- 5.2.2 Will there be any onsite recycling, reuse, or reclamation of solid wastes generated by this project?  
 Yes ☐  
 No ☒  
 If yes, describe.

**All of the recycling will be off-site.**

- 5.2.3 Will any waste material generated by this project be destroyed onsite?  
 Yes ☐  
 No ☒  
 If yes, describe how.

- 5.2.4 Will the proposed project result in the generation of any hazardous waste as defined by the ["Delaware Regulations Governing Hazardous Waste"](#)?  
 Yes ☐  
 No ☒  
 If yes, identify each hazardous waste, its volume, and how it is generated.

**No hazardous waste will be produced or used as part of the site operations.**

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

**No hazardous waste will be produced or used as part of the site operations.**

- 5.2.6 Will the proposed project cause the applicant to store, treat, and/or dispose of hazardous waste?  
Yes ☐  
No ☒  
If yes, describe.

- 5.2.7 Does the applicant currently generate any hazardous waste at this stie?  
Yes ☐  
No ☒  
If yes, describe.

**No hazardous waste will be produced or used as part of the site operations.**

### **5.3 Impacts to Flora and Fauna and Their Habitat(s)**

- 5.3.1 Will the proposed project result in the loss of any undisturbed natural habitat or public use of tidal waters?  
Yes ☐  
No ☒  
If yes, how many acres?

**There are no planned grading changes or additions to the existing building exterior or parking areas. The subject property and adjacent lands are developed and in active commercial use.**

- 5.3.2 Do threatened or endangered species (as defined by DNREC and/or the Federal Endangered Species Act) exist at the site of the proposed project or immediately adjacent to it?  
Yes ☐  
No ☒  
If yes, list each species.

**Landmark reached out to the US Fish and Wildlife Service which determined that there was no critical habitat on the subject property. Landmark reached out to the Delaware Environmental Review Coordinator to ensure that no rare or endangered species were on the Site . The letter from the Environmental Review Coordinator, the US Fish and Wildlife response and the letter to the Delaware Environmental Review Coordinator are in Attachment L.**

- 5.3.3 Will the proposed project have any effect on any threatened or endangered species?  
Yes ☐  
No ☒  
If yes, explain.

**There is no critical habitat on the subject property and there are no planned grading changes or additions to the existing building exterior or parking areas.**

- 5.3.4 What assurances can be made that no threatened or endangered species exist on or near or will be affected by the proposed project site?

**There is no critical habitat on the subject property and there are no planned grading changes or additions to the existing building exterior or parking areas.**

5.3.5 Will the proposed project have any effect on any other flora and/or fauna at the proposed project site?

Yes ☐

No ☒

If yes, describe.

**There are no planned grading changes or additions to the existing building exterior or parking areas.**

#### **5.4 Impacts to Wetlands**

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

Yes ☐

No ☒

If yes, describe.

**There are no planned grading changes or additions to the existing building exterior or parking areas.**

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

Yes ☐

No ☒

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

**No wastewater will be discharged to the environment, and there will be no increase to stormwater runoff or change in the condition of the stormwater that currently is discharged from the site. The stormwater from the site currently flows to an existing stormwater management pond in the easternmost portion of the property.**

5.4.3 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 parking areas.**

#### **5.5 Impacts to Site Drainage, Land Erosion, and Flood Control**

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

**There are no planned grading changes or additions to the existing building exterior or parking areas.**

5.5.2 Will the proposed project's operations impact drainage at the site and/or in the surrounding area?

Yes ☐

No ☒

If yes, describe.

**There are no planned grading changes or additions to the existing building exterior or parking areas.**

- 5.5.3 Will the proposed project's operations result in changes in land erosion, topography, and/or ground cover at the site and/or in the surrounding area?  
 Yes ☐  
 No ☒  
 If yes, describe.

**There are no planned grading changes or additions to the existing building exterior or parking areas.**

- 5.5.4 Will the proposed project's operations result in changes in flood control at the site and/or in the surrounding area?  
 Yes ☐  
 No ☒  
 If yes, describe.

**There are no planned grading changes or additions to the existing building exterior or parking areas, and no planned increases in water emissions or changes in runoff from the site.**

## 5.6 Impact on Water Quality and Quantity

- 5.6.1 Complete the chart below and describe wastewater discharge (new, as well as any increase or decrease compared to current discharge levels) due to project operations.

**The majority of the water used on site will be used for thawing and bringing fish, and so the only items it will contain are salt and some organics from the fish. All of the used water is discharged to the sanitary sewer system. The drains are equipped with three 200-gallon grease traps to capture organics. The grease traps are pumped monthly. New Castle County has stated that the county's sewer system will accept the wastewater generated by this facility. That email is in Attachment N.**

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
Salt	0	15,900	0	0	420	65	420	65
Organics (fish)	0	00	0	0	0	0	0	0

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

**Employee sanitary wastewater goes to the New Castle County wastewater system. There are no plans to alter that process. New Castle County has stated that the county's sewer system will accept the wastewater generated by this facility. That email is in Attachment N.**

- 5.6.3 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.

**No wastewater is discharged to the environment.**

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

**The stormwater is discharged to the stormwater pond on the site. This pond is managed by the property owner. There will be no increase in stormwater generation from the current stormwater generation at the site.**

- 5.6.5 Describe the sources of stormwater runoff (roofs, storage piles, parking lots, etc.)

**Stormwater is generated from the building rooftop and the parking facilities. There will be no increase in stormwater generation from the current stormwater generation at the site.**

- 5.6.6 Describe the amount of stormwater runoff increase over current levels that will result from the proposed project.

**There will be no increase in stormwater generation from the current stormwater generation at the site.**

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

**No pollutants will be discharged into stormwater because of this project.**

- 5.6.8 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 runoff prior to discharge.

**No changes to the building's exterior, roof, or parking areas are planned. There will be no increase in stormwater generation. The stormwater goes to the existing stormwater management area for on-site treatment.**

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

**Stormwater is discharged to the stormwater pond on the site. This pond is managed by the property owner. There will be no increase in stormwater generation from the current stormwater generation at the site, and there is no history of downstream flooding. The subject property is mapped as Zone X on the FEMA flood maps, which indicates it is an area of minimal flood hazard.**

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

Yes ☐

No ☒

If yes, state:

- a. The volume of the new flow or increase from the existing thermal discharge, both in flow and amount of heat
- b. How warm the water will be when it is discharged into a receiving waterway, discharge canal, or ditch, and what the difference in discharge temperature and ambient temperature will be 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



- 5.6.11 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"](#)?

Yes ☐

No ☒

If yes, explain.

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

**None**

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

**None**

## **5.7 Water Needs**

- 5.7.1 Estimate the amount of water to be used for each specified purpose, including cooling water.  
State:

**Approximately 10,000 gallons of water per day will be used to defrost the fish or to brine the fish prior to smoking, and 4,000 gallons to brine and process the fish.**

- a. daily and maximum water use in the unit of gallons per day for each purpose and source of water

**Approximately 14,000 gallons of water per day will be used to defrost the fish or to brine the fish prior to smoking. The water will come from the City of New Castle municipal water supply.**

- b. whether water use will vary with the seasons, time of day, or other factors

**Water use will vary based upon the volume of fish being processed. It is anticipated that the demand will be higher in the late fall, for the holiday season.**

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

**All water will be provided by the city of New Castle, the municipal water supplier.**

- 5.7.3 Are wells proposed to be used?

Yes ☐

No ☒

If yes, identify:

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

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

Yes ☐

No ☒

If yes, state:

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

## **5.8 Impacts from Glare, Heat, Noise, Vibration, Radiation, Electromagnetic Interference, and Obnoxious Odors**

### **5.8.1 Describe any impacts from the factors listed above in 5.8**

**The operations will be inside a pre-existing warehouse space within a larger existing commercial structure, part of an existing industrial park. Any generated heat, odor or noise will be contained within the structure. The process produces no glare, vibration, radiation or electromagnetic interference.**

**All byproducts from the production process (such as fish waste) are bagged in garbage bags and disposed of in a dumpster which is picked up twice per day by Waste Management. Therefore, the waste should not remain on the site long enough to cause any odor problems.**

**Based on many decades of industry experience, North Fish will implement a rigorous odor control plan to make sure the company's operations are not a nuisance to neighboring properties. To address potential odor concerns, all organic waste, including fish byproducts, will be disposed of in a durable, 2-yard plastic container instead of standard metal waste bins. The plastic waste container North Fish will use is non-porous, corrosion-resistant, and easily washable from the inside, significantly minimizing the risk of odor retention and the bin's degradation as to prevent any kind of leakage. Waste will be stored solely in this container and in a specifically-designated space immediately at the back of North Fish's building so as to not disturb other tenants or residents. All waste placed inside the isolated plastic container will always be picked up daily, at the end of the evening to ensure that no waste remains on-site overnight.**

**As part of its odor control plan, the company will actively apply baking soda to the bottom of the container prior to use as well as between layers of waste placed inside. Research has demonstrated that baking soda effectively absorbs volatile organic compounds (VOCs) responsible for unpleasant odors. According to Qamaruz-Zaman, Kun, and Rosli (2015) study published in Waste Management, approximately 3 oz of baking soda per 3lbs of waste can significantly reduce odor emissions. North Fish will also implement and maintain a rigorous waste container washing schedule, with timely sanitary dumpster cleaning occurring once every three days. It is very important to note that said container washing will solely and exclusively occur inside the building, so that waste and cleaning agents are flushed down the building's powerful and safe sewer system; the plastic dumpster bin will have caster wheels, which will permit this, and timely cleaning will make the process very manageable. Based on past business practices and years of prior experience, we are confident in the effectiveness of the aforementioned odor-control procedures. Previously, the company has never had an issue with odor-related complaints. In the very odd chance that any complaints arise, however, North Fish guarantees to address them immediately, be it through increased dumpster pickups or additional sanitary control measures (such as more frequent dumpster washing).**

**Qamaruz-Zaman, N., Kun, Y., & Rosli, R.-N. (2015). Preliminary observation on the effect of**

**baking soda volume on controlling odour from discarded organic waste. Waste Management, 35, 187–190. <https://doi.org/10.1016/j.wasman.2014.09.017>**

5.8.2 Identify any other similar impacts not listed.

**None.**

5.8.3 Describe any efforts to minimize and monitor such effects

**Interior heat will be controlled by air conditioning. Interior noise and odors will be mitigated by the existing structure and insulation.**

**Due to the nature of North Fish's smoking process, it does not generate any heat – North Fish typically uses a “cold smoking” process. As such, A/C is used for interior climate control and will not be strained/yield any cause or consequence effect as a result of smoking operations. In the future, North Fish might use a hot smoking process for approximately 5-10% of the fish processed. In the hot smoking process, the air conditioning system will be sufficient to handle any heat generated. The only difference between the hot smoking and smoking process is that in hot smoking, the fish is smoked at approximately 165° F, while in the cold smoking process, the fish is smoked at under 90° F. The amount of salt, water, and wood chips used are the same, and the emissions are the same also.**

**5.9 Impacts of Raw Materials, Intermediate Materials, Byproducts, and Final Products**

5.9.1 Describe any impacts from the factors listed above in 5.9

**The raw materials, final products and the wood used for smoking the fish are relatively inert and do not pose a risk to the environment. There are no byproducts except for smoke and small amounts of organic fish waste.**

**The production byproducts (such as fish waste) are bagged in garbage bags and disposed of in a dumpster which is picked up twice per day by Waste Management. Therefore, the waste should not remain on the site long enough to cause any odor problems.**

5.9.2 Describe any efforts to minimize and monitor such effects.

**There are no impacts to minimize or reduce.**

**5.10 Potential to Pollute**

5.10.1 Describe environmental impacts in the event of a major mechanical malfunction or human error for factors including:

a. air

**The air emissions are smoke from the processing of the fish. The smoker has an emergency stop in the event of a malfunction. The smoke is being cleaned by the Smoki Air Scrubber system, which has an alarm that sounds if it stops working. In the event that the Smoki stopped working, the air emissions would increase until the system was fixed. It is unlikely that it would malfunction as the system has a relatively low threshold to operate.**

**The employees will be trained to stop operations in the event that an alarm sounds from the Smoki Air Scrubber system.**

b. waste

**There are no foreseeable environmental impacts from the process failure or leaking of site waste into the environment, as any waste would simply be picked up and placed into the dumpsters. If one of the vats of water spilled or leaked, the water would go into the floor drain inside of the building.**

c. flora, fauna, and habitat

**There are no foreseeable environmental impacts from the process failure or leaking of site raw materials into the environment on flora or fauna. Any other major mechanical malfunctions would have no impact, as the process would simply be shut down.**

d. Wetlands

**There are no foreseeable environmental impacts from the process failure or leaking of site raw materials into the environment on wetlands in the area. Any other major mechanical malfunctions would have no impact, as the process would simply be shut down. If one of the vats of water spilled or leaked, the water would go into the floor drain inside of the building.**

e. drainage, erosion, and flood control

**There are no foreseeable impacts from the process failure on site drainage or erosion, as the peak daily flow is approximately than 14,000 gallons per day, which is in separate vats of approximately 300 gallons each. If one of the vats spilled, the water would go down the floor drains inside of the building and to the municipal sewer system.**

f. water quality and quantity

**There are no foreseeable water quality impacts from the process failure or leaking of site raw materials or finished product into the environment. Any other major mechanical malfunctions would have no impact, as the process would simply be shut down. If one of the 300 gallon vats spilled, the water would go down the floor drains inside of the building.**

g. glare, heat, noise, vibration, radiation, electromagnetic interference, and obnoxious odors

**The process does not cause radiation, electromagnetic interference, or glare. If there were mechanical failures which caused heat, vibration, or obnoxious odor impacts to the surrounding environment, the process would simply be shut down.**

h. other notable factors

**None beyond those noted above.**

5.10.2 Describe any backup controls, backup power, and safety provisions planned for this project to minimize any such accidents.

**The smoker has an alarm and an emergency stop button. In the event of a system malfunction, it would be shut down. There is no way that this equipment would damage the environment except in the event of gross system failure such as a fire.**

**For the rest of the equipment, employees are rigorously trained to ensure safety. All equipment is fitted with emergency disconnect/stop buttons, is waterproof, and has tamper shields installed to prevent unauthorized access.**

## Part 6. Economic Effects Analysis

Describe the economic effects of the proposed use, including the following elements:

### 6.1 Jobs

- 6.1.1 How many additional full-time jobs will be created as a result of the proposed project? Will they be temporary or permanent?

**The current plan is to add 25 permanent full-time jobs as a result of this project. There may be additional temporary jobs created by construction workers and contractors during the setup process.**

- 6.1.2 How many additional part-time jobs will be created as a result of the proposed project? Will they be temporary or permanent?

**The plan does not include adding any part-time jobs as a result of this project.**

- 6.1.3 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 employees added will not be seasonal, all 25 permanent employees will be full-time.**

- 6.1.4 Disclose any local hiring or purchasing preferences.

**While North Fish USA does not discriminate based upon potential employees' place of residence, the company is actively seeking to employ local community members from New Castle county in order to simplify commuting and increase local economic development.**

- 6.1.5 Disclose any community benefit agreements.

**There are no formal community benefit agreements in place.**

- 6.1.6 Will any workforce development or educational programs be implemented as a result of the proposed project?

**North Fish regularly trains employees and invests in their ongoing professional development. The company regularly sends employees to complete forklift, refrigeration, ERP, inventory management and HACCP training courses.**

- 6.1.7 Estimate the weekly construction payroll

**North Fish USA will conduct facility improvements to bring the existing food processing facility at 200 Centerpoint to par with FDA standards. The company will retain 1 foreman and 4 construction workers daily, each working 8 hours per day, for a total of 40 hours per week. Said construction contractors will be paid \$95 per hour, on average. This totals about \$19,000 per week for construction payroll. North Fish estimates that the company will require 3 weeks of construction improvements at the facility, totaling just under \$60,000 in contracting labor spent on leasehold improvements.**

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

Wage/Salary	Percent of Employees
<\$10,000	0%

\$10,000-14,999	0%
\$15,000-24,999	0%
\$25,000-34,999	0%
\$35,000-49,999	40%
\$50,000-64,999	28%
\$65,000-79,000	20%
\$80,000-100,000	8%
>\$100,000	4%

## 6.2 Tax Revenues

6.2.1 Estimate the amount of tax revenues that will accrue to state and local government, including:

a. property

**Fully covered by the landlord as part of the lease.**

b. gross receipts

**\$9,860,000**

c. personal income

**\$85,782 state corporate tax (annual)**

**\$207,060 in federal corporate tax (annual)**

**\$344,300 in estimated combined social security, medicare, unemployment, federal and state withholding combined contributions (i.e. combined payroll taxes).**

d. any others

**Local and school taxes are paid by the landlord as part of the lease.**

6.3 Estimate the economic impact of the project on individuals who are directly or indirectly dependent on natural resources from:

a. loss of natural habitat

**None. No existing natural habitat will be impacted. The company will not conduct any construction activities outside of the existing building's walls; moreover, daily operations will not affect or lead to the destruction of local flora and fauna habitat.**

b. degraded water

**None. There is no expectation of degraded water from construction or daily operations.**

c. degraded air quality

**None. We do anticipate minimal, if any, net impact on air.**

## Part 7. Aesthetic Effects

- 7.1 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 will be located entirely within a vacant space within an existing commercial structure situated within an existing business park. The proposed project will be contained within the existing structure and will not be visible from any residential area, public park, or other public meeting space.**

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

☒ Yes

☐ No

- 7.3 Describe any previous attempt to make the proposed facility aesthetically compatible with its neighboring land uses (such as landscaping or screening).

**The Division of Historical and Cultural Affairs (DHCA) website was reviewed to see if there were any places of historic or scenic value. The National Registry of Historic Places and the DHCA Historic Properties List identify the Penn Farm of the Trustees of New Castle Commons (0.5 miles to the north) and the Hanger at Bellanca Airfield (0.2 miles to the northeast). The DHCA Historic Properties List identifies Bridge 303 (0.6 miles to the southeast). See the map in the Attachment I for more information.**

**The DHCA was not consulted with beyond their website as there will be no modifications to the exterior of the facility or the grounds.**

- 7.4 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 located entirely within an existing commercial structure situated within an existing business park, and is surrounded by similar facilities within the Centerpoint Business Complex. The subject property and surrounding facilities are zoned for Industrial so the project is compatible with the neighboring land uses.**

## **Part 8. Supporting Facilities Requirements**

8.1 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

**There are no planned grading changes or additions to the existing building exterior or parking areas, or other changes to the exterior of the building as part of this project.**

8.2 Describe the impact of such facilities on all factors listed in Parts 5, 6, 7, 9, and 10 of this application.

**There are no planned grading changes or additions to the existing building exterior or parking areas, or other changes to the exterior of the building as part of this project, hence there should be no impacts to the surrounding areas and infrastructure.**



## Part 9. Effects on Neighboring Land Uses

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

**A residential subdivision is located approximately 1000 feet to the east of 200 Centerpoint Boulevard, the proposed project location. The project location is located inside an existing building in an established business park, and is separated from the residential subdivision parking lots and a tree line.**

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

Yes ☐

No ☒

If yes, explain.

**The proposed project will be located entirely within a vacant space within an existing commercial structure situated within an existing business park. The proposed project will be contained within the existing structure and will not be visible from any residential area, public park, or other public meeting space.**

- 9.3 Will the proposed project interfere with public access to tidal waters?

Yes ☐

No ☒

If yes, explain.

**The proposed project will be located entirely within a vacant space within an existing commercial structure situated within an existing business park.**

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

Yes ☐

No ☒

If yes, explain.

**The proposed project will be located entirely within a vacant space within an existing commercial structure situated within an existing business park.**

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

Yes ☐

No ☒

If yes, explain.

**The proposed project will be located entirely within a vacant space within an existing commercial structure situated within an existing business park.**

## Part 10. Offset Proposal

- 10.1 Proposed projects with any negative environmental impacts must submit an Environmental Offset Proposal, including the information listed below. Please attach the proposal to the end of this document:
- 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 the permittee plans to perform or complete the offset
  - c. Over what period of time the permittee plans to perform or complete offset project
  - d. Environmental benefits from the offset project and when they will be achieved.
  - e. Scientific evidence concerning the efficacy of the offset project in producing its intended results.
  - f. How the success or failure of the offset project will be measured, qualitatively and quantitatively, in both the short and long term.
  - g. A monitoring schedule that describes a process for third-party verification of the offset project’s operation, completion, and efficacy
  - h. Any public outreach initiatives regarding the proposed project and the results of said initiatives.
  - i. A description of the process used in identifying potential offset projects and the reason for any determination that it was not practicable to match the location, pollutant, or environmental medium of the proposed project’s environmental impacts.
  - j. Any negative impacts associated with the offset project.
- 10.2 Has the applicant undertaken any past voluntary improvements that may require them to provide less of an offset than applicants without a similar record of past achievements?  
Yes ☐  
No ☒  
If yes, describe.
- 10.3 Complete the Coastal Zone Environmental Impact Offset Matrix below. Please reference page numbers of the application or attachments that detail environmental impacts and offset proposals

### Coastal Zone Environmental Impact Offset Matrix

Environmental Impact	Environmental Impact Description	Page #	Offset Proposal	Page #
Air Pollution	Smoke from burning wood in smokers	11	North Fish will work with McConnell Development to plant 20 trees in the Centerpoint business park, to take up more emissions than the facility will generate. The tree species were selected by the consultant to be native species that do well in this area and climate. The trees will be monitored annually and replaced if they die.	11, Attach. H
Solid Waste	Household type waste, cardboard type materials	12	As much waste as possible will be recycled. The remainder will be placed in a dumpster for proper disposal.	12
Hazardous Waste	None		None	
Flora and Fauna	None		None	
Threatened/Endangered Species	None		None	
Habitats	None		None	
Wetlands	None		None	
Site Drainage	None		None	
Land Erosion	None		None	
Flood Control	None		None	
Surface Water	None		None	
Groundwater	None		None	
Water for Processing	Up to 14,000 gallons per day will be used. Approximately 10,000 gallons will be used to defrost the fish, and 4,000 gallons per day to process the fish.	14	Most of the water will be disposed of to the sanitary sewer system.	14
Water for Cooling	None		None	
Water for Effluent Removal	None		None	
Glare	None		None	
Heat	None		None	
Noise	None		None	
Odors	None		None	
Vibration	None		None	
Radiation	None		None	
Electromagnetic Interference	None		None	
Raw Materials	None		None	
Intermediate Products	None		None	
Byproducts	None		None	

Final Products	None		None	
Other Effects	None		None	

**Part 11. Attachments or Appendices (figures, tables, maps, forms, etc.)**

- 11.1 Attachments to this application must include the following documentation, in addition to any documentation not specifically mentioned that may be necessary to fully complete each response:

Appendix 1

Attachment A -Map of Project Location

Attachment B - Process Diagram

Attachment C - Safety Data Sheets/Product Characteristics

Evidence of Ability to Operate Pollution Control Equipment – Not applicable

Attachment D - Project Site Plan

Attachment E - Project Timeline

Additional Department Permits – Not Applicable

Attachment F - Environmental Permit Application Background Statement

Attachment G - Environmental Impact Statement with Certification

Attachment H - Detailed Environmental Offset Proposal

Appendix 2

Attachment I – CHRIS Map

Attachment J – Photos of Equipment

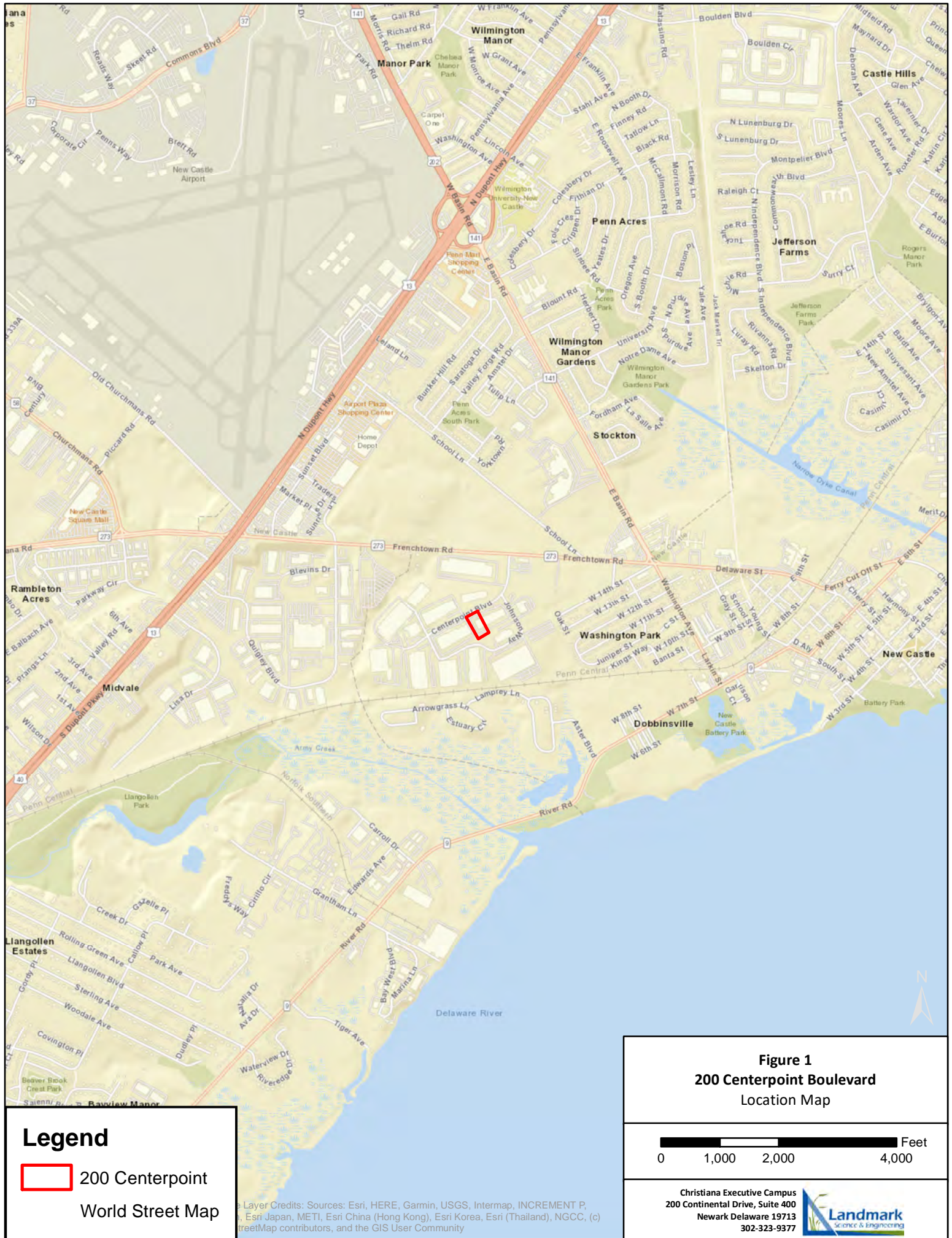
Attachment K – Wet Scrubber Information

Attachment L - Rare and Endangered Species Environmental Coordination

Attachment M - Conditional No Exposure Permit

Attachment N - New Castle County Sewer System Acceptance

## Attachment A -Map of Project Location





**Figure 1**  
**200 Centerpoint Boulevard**  
**Location Map**

0 1,000 2,000 4,000 Feet

Christiana Executive Campus  
200 Continental Drive, Suite 400  
Newark Delaware 19713  
302-323-9377



## Legend


-  200 Centerpoint
-  World Street Map

Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) StreetMap contributors, and the GIS User Community





## Legend

 200 Centerpoint

Map Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**Figure 1**  
**200 Centerpoint Boulevard**  
Location Map

0 50 100 200 Feet

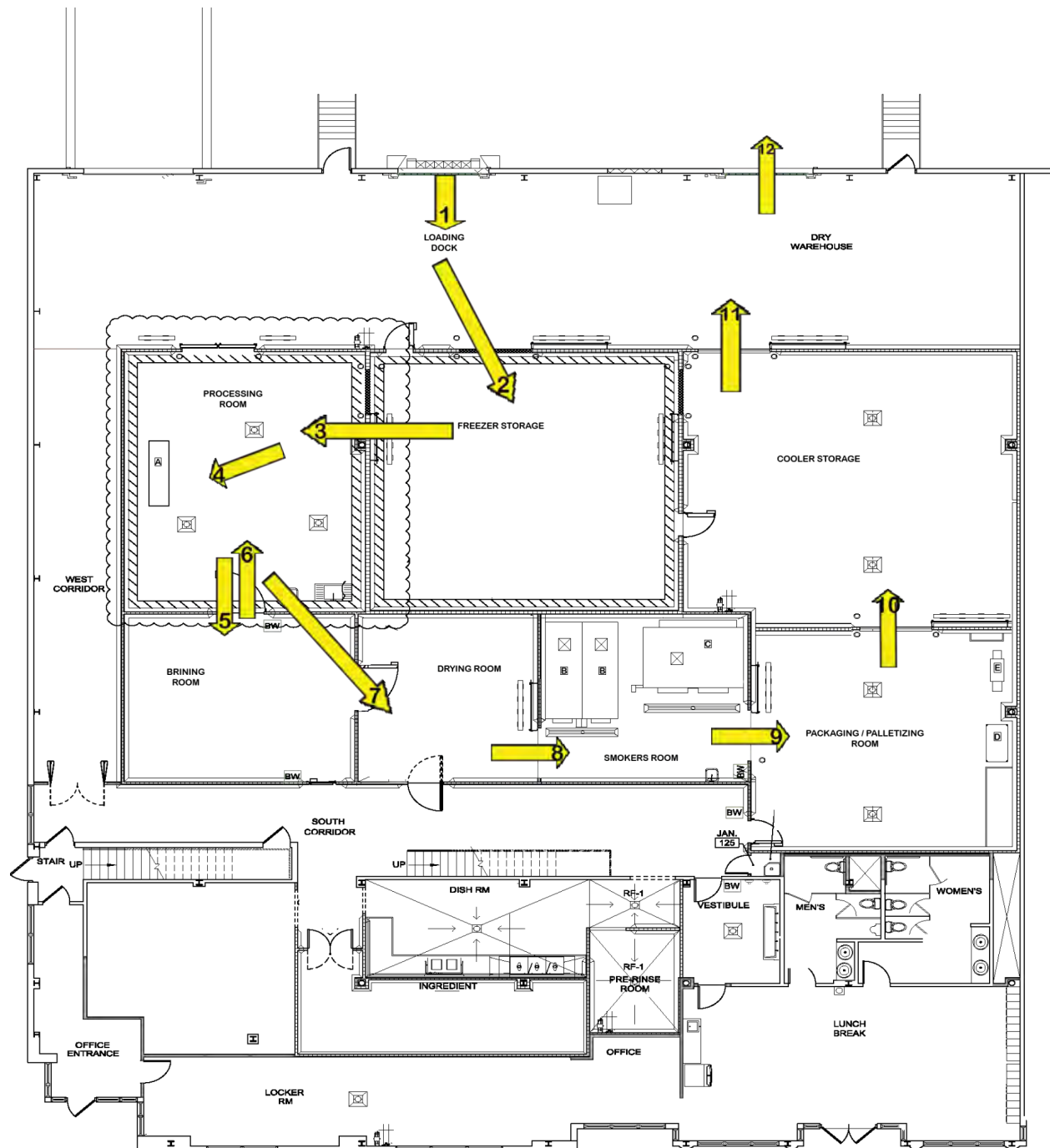
Christiana Executive Campus  
200 Continental Drive, Suite 400  
Newark Delaware 19713  
302-323-9377





## Attachment B - Process Diagram

# NORTH FISH USA PROPOSED PROCESS FLOW: 200 CENTERPOINT BLVD



## **1. Receipt and Inspection of Raw Materials**

- North Fish USA prides itself in utilizing only 4 ingredients in its processes: fish, salt, water, and 100% natural wood smoke. Upon arrival, raw fish and ingredients (salt and woodchips) are received and thoroughly inspected to ensure they are in optimal condition and meet quality standards.

## **2. Storage**

- If arriving frozen, fish is immediately placed in frozen storage until needed for processing.

## **3. Defrosting**

- When required, the fish is removed from storage, unboxed, and transferred to designated tanks in the Processing Room for controlled defrosting. If fish arrives refrigerated (fresh), it proceeds straight to the processing room.

## **4. Cleaning and Gutting**

- In the Processing Room, the defrosted fish is gutted and cleaned. Depending on the product, this process may be performed manually or with the assistance of specialized machinery (ex: Boletto mackerel gutting machine or Steen descanner).
- Certain products require careful hand processing to ensure quality and precision, while others can be efficiently processed using equipment such as the mackerel gutting machine. This machine cuts open the mackerel's belly, removes the gills and internal organs, and washes out any remaining blood and viscera.
- Once cleaned, the fish is placed into tanks containing brine solutions, which vary depending on the specific product. Brine solutions contain salt and water at varying concentrations, depending on the species and style of fish being prepared.

## **5. Brining Process**

- The brined fish is stored in the Brining Room until it reaches the specified salt concentration within the muscle tissue in accordance with FDA and HACCP standards. The duration of this process varies depending on the product—some fish remain in the brine for as little as 14 hours, while others may require up to 10 days to achieve the desired salt content.
- Each product has a specific brine formulation consisting solely of salt and water, with only a few select products requiring the addition of sodium benzoate as a preservative.

## 6. Preparation for Drying

- Once the fish has achieved the desired salt content, it is transferred back to the Processing Room, where it is hooked onto racks for further processing.

## 7. Drying

- The racks of fish are transferred from the Processing Room through the Brining Room to the Drying Room, where moisture content is gradually reduced to prepare for smoking. Moisture levels, as well as drying times and temperatures, are meticulously monitored and controlled.

## 8. Smoking Process

- When the fish reaches the appropriate moisture level, the racks are transferred to the Smoking Room, where it undergoes either a **cold smoking** or **hot smoking** process, depending on the product specifications. North Fish currently only performs cold smoking, and plans to just perform cold smoking in the future. Here, fish is smoked in one of 3 industrial smokers:

§ **Cold Smoking:** This process occurs at temperatures below 90°F (32°C), preserving the raw texture of the fish. The low heat prevents cooking but the smoke ensures shelf-stable preservation. Time: 1-6 hours, depending on the style of preparation and fish species. 40-80LBS of natural, hardwood chips are burned per cycle, with the company performing 1-2 cold smoke cycles per day.

§ **Hot Smoking:** This process is conducted at higher temperatures, typically between 120–180°F (49–82°C), fully cooking the fish. Time: 3-4 hours, depending on the style of preparation and fish species. 20LBS of natural, hardwood chips are burned per cycle, with the company performing 1-2 hot smoke cycles per week.

## 9. Packaging

- The smoked fish is moved into the temperature-controlled Packaging Room:
  - Cold-smoked products are immediately packaged in bulk or vacuum-sealed form.
  - Hot-smoked products are first cooled before packaging. Once cooled, they are either packed in bulk or vacuum-sealed.
  - Products requiring slicing are sliced, portioned, and vacuum-packed.
  - The final packaged products are placed in boxes and palletized.

#### **10. Refrigerated, Ready-to-Eat Cold Storage**

- The palletized and labeled products are stored in refrigerated conditions until they are ready for distribution. Only fully-prepared, ready-to-eat products are stored here.

#### **11. Order Fulfillment**

- Upon receiving an order, the required products are retrieved from refrigerated storage and assembled for dispatch at the Loading Dock.

#### **12. Delivery**

- The assembled orders are loaded into refrigerated trucks and transported to their respective destinations for delivery.

Attachment C - Safety Data Sheets/Product  
Characteristics



## Material Safety Data Sheet

Note: This MSDS has been compiled as a response to customer requests. It is not required under current OSHA regulations.

### 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

<b>Chemical Product Name</b>	Sodium Chloride (Salt)
<b>Chemical Family</b>	Alkali Metal/Halide
<b>Chemical Name</b>	Sodium Chloride
<b>INCI Name</b>	SODIUM CHLORIDE
<b>INN Name</b>	sodium chloride
<b>Formula</b>	NaCl
<b>Molecular Weight</b>	58.44
<b>Commercial Name</b>	Ice Control Salt
<b>Manufacturer</b>	<b>Emergency Telephone Numbers</b>
Cargill Salt	CHEMTREC (800) 424-9300
P.O. Box 5621	
Minneapolis, MN 55440	

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

#### Description

White crystalline solid

#### Ingredient Name

CAS Number	Exposure Limits	Concentration (%)
Sodium Chloride 7647-14-5		95.8 - 99.8
Sodium Ferrocyanide Decahydrate 13601-19-9		0.0050 - 0.0100

### 3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

HMIS Health: 1, Flammability: 0, Reactivity: 0, Protective Equipment: A

#### Potential Health Effects

**Route(s) Of Entry:** Ingestion, skin/eye contact, inhalation.

**Human Effects and Symptoms of Overexposure:**

**Acute Inhalation:** Irritation of the respiratory tract.

**Chronic Inhalation:** No applicable information found for chronic system effects.

**Acute Skin Contact:** Large amounts can cause irritation, and, if applied to damaged skin, absorption can occur with effects similar to those via ingestion.

**Chronic Skin Contact:** No applicable information found for chronic system effects.

**Acute Eye Contact:** Irritation with burning and tearing (salt concentrations greater than the normal saline present).

**Chronic Eye Contact:** No applicable information found for chronic systemic effects.

**Acute Ingestion:** Intake of large amounts has generally occurred for deliberate reasons: suicide, absorption, and to induce vomiting. The following effects were observed; nausea and vomiting, diarrhea, cramps, restlessness, irritability, dehydration, water retention, nose bleed, gastrointestinal tract damage, fever, sweating, sunken eyes, high blood pressure, muscle weakness, dry mouth and nose, shock, cerebral edema (fluid on brain), pulmonary edema (fluid in lungs), blood cell shrinkage, and brain damage (due to dehydration of brain cells). Death is generally due to cardiovascular collapse or CNS damage. Less than a few grams would not be harmful. For larger quantities, drink large amounts of water or milk.

**Chronic Ingestion:** No applicable information found for chronic systemic effects.

**Carcinogenicity**

**NTP:** Not listed as carcinogen or mutagen.

**IARC:** Not listed as carcinogen or mutagen.

**OSHA:** Not listed as carcinogen or mutagen.

**Medical Conditions Aggravated by Exposure:** In some cases of confirmed hypertension, ingestion may result in elevated blood pressure.

## 4. FIRST AID MEASURES

**First Aid for Eyes:** For eye contact, flush with water immediately, lifting eyelids occasionally.

**First Aid for Skin:** Remove clothing from affected area. Wash skin thoroughly. Rinse carefully.

**First Aid for Inhalation:** If person breathes large quantities, remove to fresh air at once. If breathing stops, apply artificial respiration immediately.

**First Aid for Ingestion:** Less than a few grams would not be harmful. For larger quantities, drink large amounts of water or milk.

## 5. FIRE AND MEASURES

**Flash Point:** N/A

**Extinguishing Media:** N/A. This product is nonflammable.

**Special Fire Fighting Procedures:** N/A

## 6. ACCIDENTAL RELEASE MEASURES

**Spill or Leak Procedures:** Contain spills to prevent contamination of water supply or sanitary sewer system. Vacuum or sweep into containers for proper disposal.

## 7. HANDLING AND STORAGE

**Storage Temperature (min./max.):** Avoid humid or wet conditions as product will cake and become hard.

**Special Sensitivity:** Avoid contact with strong acids.

**Handling and Storage Precautions:** Becomes hygroscopic at 75% relative humidity.



## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Eye Protection Requirements:** Eyeglasses or goggles should be worn in dusty areas.

**Skin Protection Requirements:** Protective clothing may be worn in dusty areas, but is generally not required.

**Respiratory/Ventilation Requirements:** NIOSH/MSHA approved respirator for particulates.

**Exposure Limits:** Not listed.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical Form:** White crystalline solid with slight halogen odor.

**Color:** White to opaque.

**Odor:** Halogen odor when heated.

**Boiling Point (760mm Hg)(°C):** 1465

**Melting Point/Freezing Point (°C):** 801

**pH:** 6.7 – 10.0

**Solubility in Water (g/cc)(%):** 26.4

**Specific Gravity (H<sub>2</sub>O = 1):** 2.16

**Bulk Density (lbs./ft<sup>3</sup>):** 35-83

**% Volatile by Weight:** N/A

**Vapor Pressure (mm Hg/747°C):** 2.4

**Vapor Density (Air=1):** N/A

## 10. REACTIVITY

**Stability:** Stable

**Incompatibilities:** Avoid contact with strong acids. Becomes corrosive to metals when wet.

**Decomposition Products:** May evolve chlorine gas when in contact with strong acids.

## 11. TOXICOLOGICAL INFORMATION

**Description:** Not listed.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** Not listed.

**Environmental Degradation:** Not listed.

### **13. DISPOSAL CONSIDERATIONS**

**Waste Disposal Method:** Follow applicable Federal, state, and local regulations.

### **14. TRANSPORTATION INFORMATION**

**D.O.T. Shipping Name:** Not listed.

**Technical Shipping Name:** Not listed.

**D.O.T. Hazard Class:** Not listed.

**U.N./N.A. Number:** Not listed.

**Product Rq (lbs.):** N/A

**D.O.T. Label:** Not listed.

**D.O.T. Placard:** N/A

**Freight Class Bulk:** N/A

**Freight Class Package:** N/A

**Product Label:** N/A

### **15. REGULATORY INFORMATION**

**OSHA Status:** Not listed.

**TSCA Status:** Listed as non-hazardous.

**CERCLA Reportable Quantity SARA Title III**

**Section 302 Extremely Hazardous Substances:** Not listed.

**Section 311/312 Hazard Categories:** Not an OSHA hazardous material.

**Section 313 Toxic Chemicals:** Not listed.

**RCRA Status:** Not listed.

**EINECS Number:** 231-598-3

**ENCS Number:** 1-236

**ECL Serial Number:** KE-31387

**SWISS Number:** G-2580

**HMIS Rating:** 1 0 0 A

### **State Regulatory Information**

**Company Name/Cas Number**  
N/A

**Concentration**

**State Code**

## **16. OTHER INFORMATION**

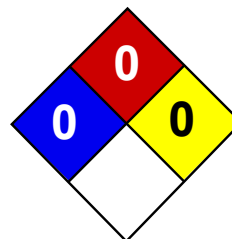
**Reason for Issue:** Regulatory compliance.

<b>Prepared By:</b>	Steve Karl
<b>Approved By:</b>	Sarah Hubert
<b>Title:</b>	Technical Director
<b>Approval Date:</b>	February 2012
<b>Supersedes Date:</b>	February 2009
<b>MSDS Number:</b>	NB2

Disclaimer: All statements, technical information and recommendations contained herein are, to the best of our knowledge, reliable and accurate; however, no warranty, either expressed or implied is made with respect thereto, nor will any liability be assumed for damages resultant from the use of the material described.

It is the responsibility of the user to comply with all applicable Federal, state and local laws and regulations. It is also the responsibility of the user to maintain a safe workplace. The user should consider the health hazards and safety information provided herein as a guide and should take the necessary steps to instruct employees, and to develop work practice procedures to ensure a safe work environment.

This information is not intended as a license to operate under, or a recommendation to practice or infringe upon any patent of this Company or others covering any process, composition of matter or use.



Health	0
Fire	0
Reactivity	0
Personal Protection	A

## Material Safety Data Sheet

### Water MSDS

#### Section 1: Chemical Product and Company Identification

**Product Name:** Water

**Catalog Codes:** 31930

**CAS#:** 7732-18-5

**RTECS:** ZC0110000

**TSCA:** TSCA 8(b) inventory: Water

**CI#:** Not available.

**Synonym:** Dihydrogen oxide

**Chemical Name:** Water

**Chemical Formula:** H<sub>2</sub>O

#### Contact Information:

**Finar Limited.**

184-186/P, Vill: Chacharwadi Vasna,  
Sarkhej Bavla Highway, Ta.: Sanand,  
Dist.: Ahmedabad.

Email: [info@finarchemicals.com](mailto:info@finarchemicals.com)

Web: [www.finarchemicals.com](http://www.finarchemicals.com)

#### Section 2: Composition and Information on Ingredients

##### Composition:

Name	CAS #	% by Weight
Water	7732-18-5	100

**Toxicological Data on Ingredients:** Not applicable.

#### Section 3: Hazards Identification

##### Potential Acute Health Effects:

Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-sensitizer for lungs. Non-corrosive to the eyes. Non-corrosive for lungs.

##### Potential Chronic Health Effects:

Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-irritating to the eyes. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-sensitizer for lungs. CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available.

#### Section 4: First Aid Measures

**Eye Contact:** Not applicable.

**Skin Contact:** Not applicable.

**Serious Skin Contact:** Not available.

**Inhalation:** Not applicable.

**Serious Inhalation:** Not available.

**Ingestion:** Not Applicable

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not applicable.

**Flash Points:** Not applicable.

**Flammable Limits:** Not applicable.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not applicable.

**Explosion Hazards in Presence of Various Substances:** Not Applicable

**Fire Fighting Media and Instructions:** Not applicable.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

**Small Spill:** Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Large Spill:** Absorb with an inert material and put the spilled material in an appropriate waste disposal.

## Section 7: Handling and Storage

**Precautions:** No specific safety phrase has been found applicable for this product.

**Storage:** Not applicable.

## Section 8: Exposure Controls/Personal Protection

**Engineering Controls:** Not Applicable

**Personal Protection:** Safety glasses. Lab coat.

**Personal Protection in Case of a Large Spill:** Not Applicable

**Exposure Limits:** Not available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Liquid.

**Odor:** Odorless.

**Taste:** Not available.

**Molecular Weight:** 18.02 g/mole

**Color:** Colorless.

**pH (1% soln/water):** 7 [Neutral.]

**Boiling Point:** 100°C (212°F)

**Melting Point:** Not available.

**Critical Temperature:** Not available.

**Specific Gravity:** 1 (Water = 1)

**Vapor Pressure:** 2.3 kPa (@ 20°C)

**Vapor Density:** 0.62 (Air = 1)

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** Not applicable

**Solubility:** Not Applicable

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Not available.

**Incompatibility with various substances:** Not available.

**Corrosivity:** Not available.

**Special Remarks on Reactivity:** Not available.

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Absorbed through skin. Eye contact.

**Toxicity to Animals:**

LD50: [Rat] - Route: oral; Dose: > 90 ml/kg LC50: Not available.

**Chronic Effects on Humans:** Not available.

**Other Toxic Effects on Humans:**

Non-corrosive for skin. Non-irritant for skin. Non-sensitizer for skin. Non-permeator by skin. Non-hazardous in case of ingestion. Non-hazardous in case of inhalation. Non-irritant for lungs. Non-sensitizer for lungs. Non-corrosive to the eyes. Non-corrosive for lungs.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:** Not available.

**Special Remarks on other Toxic Effects on Humans:** Not available.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

## Section 13: Disposal Considerations

**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: Water

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

This product is not classified according to the EU regulations. Not applicable.

**HMIS (U.S.A.):**

**Health Hazard:** 0

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** a

**National Fire Protection Association (U.S.A.):**

**Health:** 0

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Not applicable. Lab coat. Not applicable. Safety glasses.

**Section 16: Other Information**

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/06/2010

**Last Updated:** 30/11/2012

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Finar Limited be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Finar Limited has been advised of the possibility of such damages.*





# SAFETY DATA SHEET

**Issuing Date** January 5, 2015

**Revision Date** New

**Revision Number** 0

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product identifier

**Product Name** Kingsford® Wood Chips - 100% Natural Hickory

### Other means of identification

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Hickory smoke flavor enhancer for barbecuing

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### **Supplier Address**

The Clorox Company  
1221 Broadway  
Oakland, CA 94612

Phone: 1-510-271-7000

### Emergency telephone number

#### **Emergency Phone Numbers**

For Medical Emergencies call: 1-800-446-1014  
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

## 2. HAZARDS IDENTIFICATION

### Classification

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

### GHS Label elements, including precautionary statements

#### Emergency Overview

This product is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Appearance** Tan

**Physical State** Solid

**Odor** Woody

### Precautionary Statements - Prevention

None

### Precautionary Statements - Response

None

### Precautionary Statements - Storage

None

### Precautionary Statements - Disposal

None

### Hazards not otherwise classified (HNOC)

Not applicable

### Unknown Toxicity

Not applicable.

### Other information

Not applicable

### Interactions with Other Chemicals

No information available.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product contains no substances that at their given concentrations are considered to be hazardous to health.

#### 4. FIRST AID MEASURES

##### First aid measures

<b>General Advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Hold eye open and rinse slowly and gently with water for 15–20 minutes. If present, remove contact lenses after the first 5 minutes of rinsing, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Rinse skin with plenty of water. If irritation persists, call a doctor.
<b>Inhalation</b>	Move to fresh air. If breathing problems develop, call a doctor.
<b>Ingestion</b>	Drink a glassful of water. Call a doctor or poison control center.

##### Most important symptoms and effects, both acute and delayed

<b>Most Important Symptoms and Effects</b>	No effects expected.
--	----------------------

##### Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

#### 5. FIRE-FIGHTING MEASURES

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

##### Unsuitable Extinguishing Media

None.

##### Specific Hazards Arising from the Chemical

##### **Hazardous Combustion Products**

Oxides of carbon.

##### Explosion Data

**Sensitivity to Mechanical Impact** No.

**Sensitivity to Static Discharge** No.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

---

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

Personal Precautions	Avoid contact with eyes.
Other Information	Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

Environmental Precautions	See Section 12 for additional ecological information.
---------------------------	---

### Methods and material for containment and cleaning up

Methods for Containment	Not applicable.
Methods for Cleaning Up	Containerize. Wash residual down to sanitary sewer.

---

## 7. HANDLING AND STORAGE

### Precautions for safe handling

Handling	Handle in accordance with good industrial hygiene and safety practice.
----------	--

### Conditions for safe storage, including any incompatibilities

Storage	Keep containers tightly closed.
Incompatible Products	None known.

---

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure Guidelines	This product does not contain any ingredients with occupational exposure limits.
---------------------	--

### Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems
----------------------	--

### Individual protection measures, such as personal protective equipment

Eye/Face Protection	No special protective equipment required.
Skin and Body Protection	No special protective equipment required.
Respiratory Protection	No protective equipment is needed under normal use conditions.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical State</b>	Solid	<b>Odor</b>	Woody
<b>Appearance</b>	Opaque	<b>Odor Threshold</b>	No information available
<b>Color</b>	Tan		

<u>Property</u>	<u>Values</u>	<u>Remarks/ Method</u>
pH	No data available	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Bulk density	No data available	None known
Water Solubility	Insoluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

### Other Information

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available.

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None known.

### Conditions to avoid

None known.

### Incompatible materials

None known.

### Hazardous Decomposition Products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

Inhalation	No effects expected.
Eye Contact	No effects expected.
Skin Contact	No effects expected.
Ingestion	No effects expected.

### Information on toxicological effects

Symptoms	No effects expected.
----------	----------------------

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic Effects	No information available.
Carcinogenicity	Contains no ingredient listed as a carcinogen.
Reproductive Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic Toxicity	No known effect.
Target Organ Effects	No known effects.
Aspiration Hazard	Not an aspiration hazard.

### Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document  
No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

The environmental impact of this product has not been fully investigated.

### Persistence and Degradability

No information available.

### Bioaccumulation

No information available.

### Other adverse effects

No information available.

### 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Reclaim, if possible; otherwise, dispose of in accordance with all applicable federal, state, and local regulations..

**Contaminated Packaging**

Dispose of in accordance with all applicable federal, state, and local regulations.

### 14. TRANSPORT INFORMATION

**DOT** Not regulated.

**TDG** Not regulated.

**ICAO** Not regulated.

**IATA** Not regulated.

**IMDG/IMO** Not regulated.

### 15. REGULATORY INFORMATION

**Chemical Inventories**

**TSCA** All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.

**DSL/NDSL** All components are on the DSL or NDSL or exempt from listing.

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazard Categories**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

This product does not contain any substances that are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

## US State Regulations

### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**California Proposition 65 Warning:** Combustion (burning) of this product, like other cooking methods, produces carbon monoxide and other substances known by the State of California to cause cancer, birth defects, or reproductive harm.

### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated under state right-to-know regulations.

## International Regulations

### **Canada**

#### **WHMIS Hazard Class**

Not controlled.

## **16. OTHER INFORMATION**

<b>NFPA</b>	<b>Health Hazard</b> 0	<b>Flammability</b> 1	<b>Instability</b> 0	<b>Physical and Chemical Hazards</b> -
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<b>HMIS</b>	<b>Health Hazard</b> 0	<b>Flammability</b> 1	<b>Physical Hazard</b> 0	<b>Personal Protection</b> -
-------------	------------------------	-----------------------	--------------------------	------------------------------

#### **Prepared By**

Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

#### **Preparation/Revision Date**

January 5, 2015

#### **Revision Note**

New

#### **Reference**

CLX140070-001-A/140070.001

### **General Disclaimer**











The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**



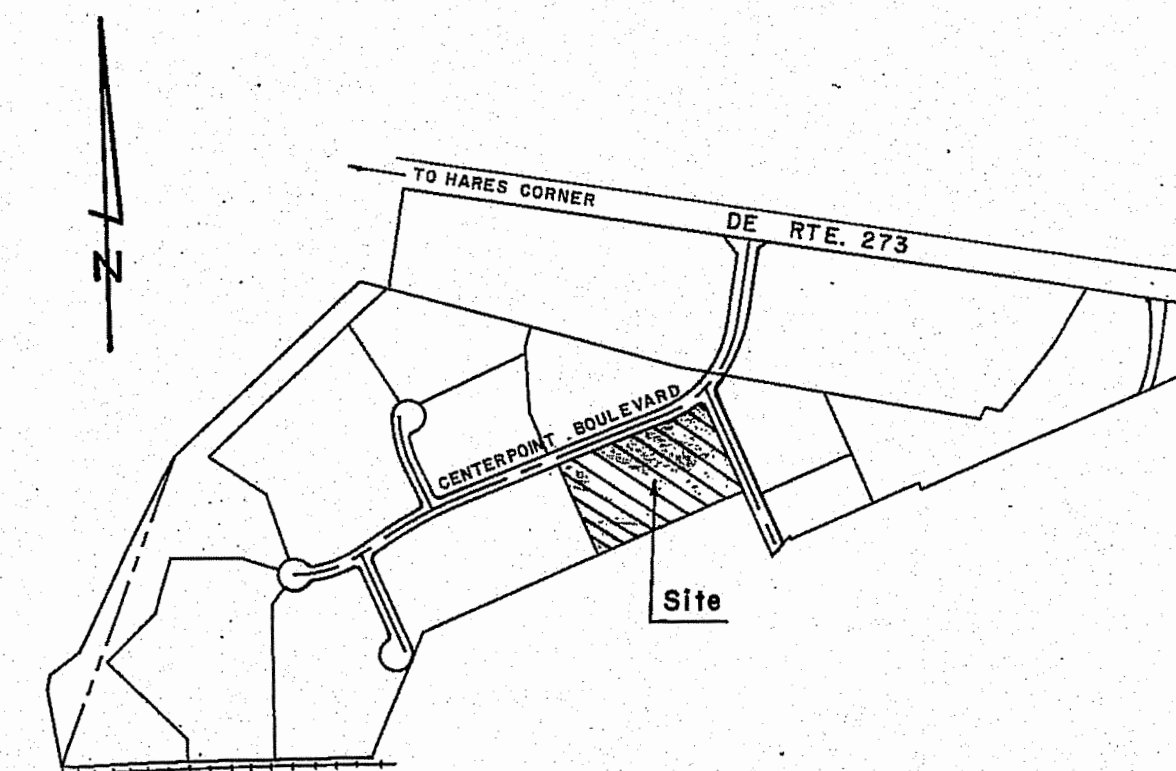
## Attachment D - Project Site Plan



- |   |  |
|---|--|
|  | SIDEWALK   |
|  | CURB   |
|  | NO. OF PARKING SPACES  |
|  | AREA OF DEPRESSED CURB & SIDEWALK<br>FOR BARRIER FREE ACCESS |
|  | HANDICAP PARKING (13' x 20')                                 |
|  | TYPICAL PARKING SPACE (9 x 20)                               |
|  | LAMP POST  |
|  | SAN. MANHOLE   |
|  | CATCHBASIN   |
|  | CLEAN OUT  |

ALL that certain lot, piece or parcel of land, with the improvements thereon, situate in the City of New Castle, New Castle County and State of Delaware, being shown on the Record Land Development Plan of Parcel "1", CENTERPOINT BUSINESS COMPLEX, Drawing No. 88022587-3409, dated December 8, 1988, prepared by McBride & Ziegler, Inc., Registered Land Surveyors, and recorded in the Office of the Recorder of Deeds in and for New Castle County and State of Delaware at Microfilm No. 9551, and being more particularly bounded and described as follows, to-wit:

BEGINNING at the easterly end of a 23 foot radius junction curve joining the westerly right of way line of "Johnson Way" (a public road at 60 feet wide), with the southeasterly right of way line of "Centerpoint Boulevard" (a public road at varying widths); THENCE South 23° 56' 17" East along said westerly right of way line 393.81 feet to a point in the northwesterly boundary of lands now or formerly of "Celanese Corp."; THENCE South 66° 03' 43" West along said northwesterly boundary 670.00 feet to a corner of other lands of "Centerpoint Business Complex"; THENCE North 23° 56' 17" West by other lands of "Centerpoint Business Complex" 417.54 feet to a point in the southeasterly right of way line of "Centerpoint Boulevard"; THENCE along said southeasterly right of way line the two following courses and distances: (1) North 68° 03' 43" East 493.47 feet to a point of curvature; and (2) on a curve to the left having a radius of 530.00 feet, an arc distance of 149.53 feet, the chord equivalent being 149.04 feet measured North 59° 58' 45" East to a point of compound curvature; THENCE on a curve to the right having a radius of 23.00 feet, an arc distance of 41.81 feet, the chord equivalent being 36.29 feet measured South 76° 01' 15" East to the point of Beginning.



LOCATION MAP

SCALE: 1" = 800'

## DATA COLUMN:

AREA: 6.2779+/- Acres

ZONING: City of New Castle : ID-1

TAX PARCEL NO.: 21 - 013.00 - 103

WATER SUPPLY: City of New Castle.

SEWAGE DISPOSAL: New Castle County system.

PARKING SPACES: 122 REGULAR SPACES  
5 HANDICAPPED PARKING SPACES

### SURVEY CERTIFICATION

Kevin Ziegler, a registered land surveyor, License No. 579, in and for the State of Delaware and legally doing business in New Castle County, does hereby certify to Centerpoint 200 Partnership, Centerpoint 200, LLC, State Farm Life Insurance Company, Chicago Title Insurance Company and Morris, Nichols, Arsht and Tunnel, and their respective successors and assigns:

- a. The Survey shows the location of all boundary lines of the Premises, all encroachments onto the Premises from adjacent properties or from the Premises onto adjacent properties, all easements of record (each identified with recording date) affecting the Premises, including the location and identification of any sanitary sewer, storm sewers, and water, gas and electrical easements;
- b. The Premises have unencumbered access to public roadway(s) or that the easements shown on the Survey as part of the Premises provide unencumbered access to a public roadway(s);
- c. Necessary utilities are available at the perimeter in order to service the Premises;
- d. The survey shows the location of all buildings, structures, fences, signs, parking areas, driveways and curb-outs and the location of foundations to be within the property boundary lines, outside of all easements, and that such foundations have been constructed in accordance with the latest plat recorded for the entire development and within any set-back requirements, fire and clear of all easements of every kind;
- e. The survey shows all set-back, height, bulk and other restrictions of record, whether imposed by zoning ordinances, building codes, subdivision maps or restrictive covenants;
- f. The survey shows the total square footage(s) of the lands, building, and parking areas, as well as the total number and type of parking spaces;
- g. No portion of the Premises is located within a "Special Flood Hazard Area" as defined by the National Flood Protection Act, with the flood zone designation noted thereon;
- h. The survey shows (i) areas denoted or restricted in reciprocal agreements and (ii) the zoning classifications for the Premises with permitted uses and non-conforming permitted uses noted, as applicable; and
- i. The survey is prepared in accordance with minimum standard detail requirements then in effect for ALTA/ACSM Land Title Surveys.

The undersigned has received and examined a copy of Chicago Title Insurance Company Commitment No. 36471-200, dated October 15, 1997, and the location of any matter shown therein, to the extent it can be located, has been shown on this Survey with the appropriate recording reference.

The parties listed above are entitled to rely on the Survey and this Certificate as being true and accurate.

This survey is made in accordance with the 1992 "Minimum Standard Detail Requirements and Classifications for ALTA/ACSM Land Title Surveys", jointly established and adopted by the American Land Title Association ("ALTA") and the American Congress on Surveying and Mapping ("ACSM") and meets the requirements of an Urban Survey, as defined in the current accuracy standards jointly adopted by ALTA and ACSM and includes items [1, 2, 3, 4, 6, 7(a), 8, 9, 10, 11 and 13 of Table A thereof.

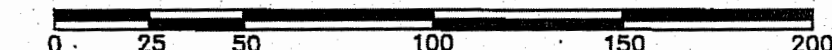
Kevin P. Ziegler  
Kevin P. Ziegler, P.E.  
DE Registration No. 579

DATE: 11/07/2007

**AS-BUILT PLAN**  
OF

**PARCEL 1, CENTERPOINT BUSINESS COMPLEX**  
**KNOWN AS**  
**#200 CENTERPOINT BOULEVARD**  
**PREPARED FOR**  
**CENTERPOINT 200 PARTNERSHIP**

CITY OF NEW CASTLE, NEW CASTLE COUNTY, DE.

M  
&  
Z

**McBRIDE & ZIEGLER, INC.**  
REGISTERED LAND SURVEYORS  
NEWARK, DELAWARE  
19711

APPROVED BY: Kevin P. Ziegler

<b>SURVEY BY:</b> K. Z.	<b>CHECKED BY:</b> K. Z.
<b>DESIGN BY:</b> R. P.	<b>SCALE:</b> 1" = 50'
<b>DRAWN BY:</b> R. P. & Y. M.	<b>DATE:</b> 11/6 / 07
<b>DWG. NO.</b> 9703268 - 8366	

[illegible]

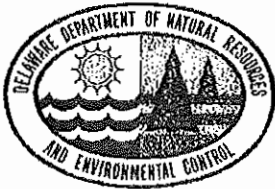


## Attachment E - Project Timeline

## Project Schedule

Begin Coastal Zone Application	28-Mar-25
Submit Coastal Zone Application	29-Apr-25
Resubmit CZA	1-May-25
Start Lease at 200 Centerpoint	1-Jul-25
Begin Operations at 200 Centerpoint	Third Quarter 2025

Attachment F - Environmental Permit Application  
Background Statement



DELAWARE DEPARTMENT OF NATURAL RESOURCES  
AND ENVIRONMENTAL CONTROL ("DNREC")

ENVIRONMENTAL PERMIT APPLICATION  
BACKGROUND STATEMENT

Pursuant to 7 Del. C. Chapter 79

FILING STATUS:



This Background Statement is being filed with DNREC because:

1. It is an initial application for a new permit (or permits) and the applicant or applicant company has not held a permit issued by DNREC for a period of 5 or more years [See 7 Del. C. § 7902(a) and (b)];
- ☐ 2. It is required on an annual basis because the applicant or applicant company has been designated a chronic violator pursuant to 7 Del. C. § 7904 [See 7 Del. C. § 7902(a)(7) and (b)(2)]; or
- ☐ 3. It is required on an annual basis as the applicant or applicant company has been found guilty, pled guilty or no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment as defined in 7 Del. C. § 7902(c) [See 7 Del. C. § 7902(a)(7) and (b)(2)].

APPLICANT OR APPLICANT COMPANY'S NAME OR COMPANY'S NAME FILING STATEMENT	NORTH FISH USA INC.
DATE OF APPLICATION OR DATE OF STATEMENT	04/02/2025
PERMIT(S) BEING APPLIED FOR OR STATEMENT FOR FILING STATUSES 2 OR 3	<input checked="" type="checkbox"/> Permit Type(s) Coastal Zone Act Permit  <input type="checkbox"/> Statement for filing Statutes 2 or 3—If filing under these statutes, attach a statement of the date of designation as Chronic Violator or the date of Conviction/Plea.
OTHER DNREC PERMITS HELD	<input checked="" type="checkbox"/> N/A – No other permits held with DNREC  <input type="checkbox"/> List of all DNREC permits currently held with dates of issuance and expiration attached.

## ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT

**Please note:** Companies filing statements pursuant to Chapter 79 have the right to identify information to be afforded confidential status pursuant to 7 Del. C. § 7903(b) and the requirements set forth in Section 6, "Requests for Confidentiality" of the DNREC *Freedom of Information Act Regulation*.

PROVIDING ALL OF THE INFORMATION REQUESTED IN THIS FORM SATISFIES THE REQUIREMENTS OF 7 DEL. C. CHAPTER 79 ("ENVIRONMENTAL PERMIT APPLICATION BACKGROUND STATEMENT") UNLESS THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL ("DNREC") OR THE DELAWARE DEPARTMENT OF JUSTICE DETERMINES THAT ADDITIONAL SUBMISSIONS ARE NECESSARY. FAILURE TO PROVIDE THE INFORMATION REQUESTED OR PROVIDING ERRONEOUS INFORMATION IS GROUNDS FOR DENYING OR REVOKING AN ENVIRONMENTAL PERMIT/APPROVAL/LICENSE, AND FOR CIVIL AND/OR CRIMINAL PENALTIES.

A. (Authority - 7 Del. C. § 7902(a)(1&2) & § 7905) Attach a complete list (full names) of all current members of the applicant company's board of directors, all current corporate officers, all persons owning more than 20% of the applicant's stock or other resources, all subsidiary/affiliated companies with type of business performed, street addresses, all parent companies with addresses, all companies with which the applicant's company shares two or more members of the board of directors, and the name(s) of the person(s) serving as the applicant's local chief operating officer(s) with respect to each facility covered by the permit in question or for the statement required for filing Statuses 2 or 3. [Note: For companies that do not have a *facility* located in Delaware, no listing for the local chief operating officer(s) is required].

- ☒ Information attached
- ☐ Information attached, except for local chief operating officer as there is no facility located in the State of Delaware.

B. (Authority - 7 Del. C. § 7905) Please check one of the following selections below, showing type of ownership for the applicant or applicant/statement company:

- ☐ Proprietorship List the state, county, book record and page number where the certificate is found (Attach hereto).
- ☐ Partnership List the state, county, book record and page number where the certificate is found (Attach hereto).
- ☒ Corporation (LLCs included) List the city, state, date of incorporation, corporation file number, current corporate standing, registered agent, and address of the registered agent (Attach hereto).
- ☐ Municipality
- ☐ Public Institution/  
Government Agency
- ☐ Other \_\_\_\_\_

C. (Authority - 7 Del. C. § 7902(a)(3) & § 7905) Have any of the following been issued to or agreed to by the applicant or applicant/statement company, any employee, person, entity, or subsidiary/affiliated company, specified in response to Item A, for violation of any environmental statute, regulation, permit, license, approval, or order, regardless of the state in which it occurred, during the five years prior to the date of this application/statement

OFFENSE	YES	NO
Notice of Violation(s)		✓
Administrative Order(s)		✓
Administrative Penalty(ies)		✓
Civil Action(s)		✓
Civil Penalty(ies)		✓
Civil and/or Administrative Settlement Agreement(s)		✓
Permit/License/Approval Revocation		✓
Arrest(s)		✓
Conviction(s)		✓
Criminal Penalty(ies)		✓
Criminal Plea Bargain		✓



**D. (Authority - 7 Del. C. § 7902(a)(3), (a)(4) & § 7905)** If you answered "yes" to any of the actions listed in Item C above for the applicant or applicant company or any other person identified in Item A, attach a description of the incidents or events leading to the issuance of each action, regardless of the state in which it occurred, for the 5 years prior to the date of the statement, and the disposition of each action, what state the action/offense occurred in, and any actions that have been taken to correct the violations that led to such enforcement action.



N/A



Information attached

**E. (Authority - 7 Del. C. § 7902(a)(5) & § 7905)** Attach a description of any felony or other criminal conviction for a crime involving harm to the environment or violation of environmental standards of any person or entity identified in Item A above that resulted in a fine greater than \$1,000 or a sentence longer than 7 days, regardless of whether such fine or sentence was suspended.



N/A



Description attached

**F. (Authority - 7 Del. C. § 7902(a)(6) & § 7905)** Attach copies of any and all settlements of environmental claims involving the applicant, associated with actions identified in response to Item D above, whether or not such settlements were based on agreements where the applicant did not admit liability for the action.



N/A



Information attached

Items for Filing Statutes 2 or 3 Only

G. (Authority - 7 Del. C. § 7902(a)(7) and § 7905) If the applicant or applicant/statement company has been found guilty, pled guilty or no contest, to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment attach a summary of the events involved and a copy of the disposition of the action (See 7 Del. C. § 7902(c) for definitions of "serious physical injury" or "serious harm to the environment" before answering this question.)



N/A



Yes -- Information Attached.

H. (Authority - 7 Del. C. § 7902(a)(8)) -- If the applicant or applicant/statement company has been designated a chronic violator under 7 Del. C. § 7904, a detailed written report from an independent inspector who has inspected the applicant's premises for the purpose of detecting potential safety and environmental hazards to employees and the surrounding community. The Secretary may waive the duty to submit a detailed written report upon a showing of good cause by the applicant. A showing by the applicant that the acts which caused it to be designated as a chronic violator did not jeopardize public health shall constitute "good cause" under this paragraph.

N/A

I. (Authority - 7 Del. C. § 7902(a)(7)) -- If the applicant or applicant/statement company has been designated a chronic violation under § 7904 of this Title, OR has been found guilty or pled no contest to any crime involving violation of environmental standards which resulted in serious physical injury or serious harm to the environment, a statement made under oath by the applicant or applicant/statement company's local chief operating officer with respect to the facilities covered by the permit, stating that: (a) disclosures made by the applicant/reporting company under federal and state environmental statutes and regulations during the preceding calendar year have been, to the chief operating officer's knowledge, complete and accurate, and (b) that the facility has implemented policies, programs, procedures, standards or systems reasonably designated, in light of the size, scope, and nature of facility operations to detect and promptly correct any noncompliance with state environmental statutes and regulations. The statement filed pursuant to this paragraph shall include an acknowledgement by the affiant that intentionally false statements submitted in compliance with this paragraph constitute criminal perjury as defined at 11 Del. C. §§1221-1222.

N/A

STATE OF DELAWARE - DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL  
ENVIRONMENTAL PERMIT BACKGROUND STATEMENT

CERTIFICATION

I HEREBY CERTIFY THAT I HAVE READ THE PRECEDING SUBMISSION, HAVE PROVIDED ALL OF THE INFORMATION REQUESTED, AND THAT ALL OF THE INFORMATION PROVIDED IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SIGNATURE—APPLICANT OR  
OFFICER OF APPLICANT/STATEMENT COMPANY

DATE: 04/02/2025

NAME: Nikita Borisenko

TITLE: Chief Operating Officer

COMPANY  
NAME: NORTH FISH USA INC.

ADDRESS: 2601 John P Lyons Lane  
Unit A  
Hallandale Beach, FL 33009

TELEPHONE: (954) 251-2021

FAX NUMBER: N/A

REGISTERED  
AGENT NAME: Timothy Trachenko

ADDRESS: 2601 John P Lyons Lane, Unit A Hallandale Beach  
FL 33009

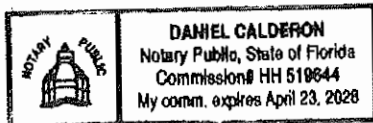
TELEPHONE: (954) 251-2021

FAX NUMBER: N/A

SWORN TO AND SUBSCRIBED

BEFORE ME THIS 02 DAY OF

APRIL, 2025



NOTARY PUBLIC SIGNATURE (SEAL)

Daniel Calderon

PRINTED NAME OF NOTARY PUBLIC

Florida / BROWARD  
STATE / COUNTY

MY COMMISSION EXPIRES ON: APRIL 23, 2028

**Attachment A. (Authority - 7 Del. C. § 7902(a)(1&2) & § 7905)**

Nikita Borisenko

Vadim Tkachenko

Timothy Tkachenko

**Attachment B. (Authority - 7 Del. C. § 7905)**

North Fish USA Inc  
2601 John P Lyons Lane  
Unit A  
Hallandale Beach, FL 33009

City, state, and date of incorporation: 03/31/2011 in Hallandale Beach, Florida  
Corporation file number: P11000032386  
Current corporate standing (status): ACTIVE (good)

Registered Agent: Timothy Tkachenko  
2601 John P Lyons Lane  
Unit A  
Hallandale Beach, FL 33009

Attachment G - Environmental Impact Statement with  
Certification



May 22, 2025

C 3160

DNREC Coastal Zone Act Program  
100 W. Water Street, Suite 7B  
Dover, Delaware 19904

**SUBJECT: CZA FOR 200 CENTERPOINT BOULEVARD  
CENTERPOINT BUSINESS COMPLEX, NEW CASTLE, DELAWARE**

Dear Sir or Madam:

Landmark Science & Engineering (Landmark) has completed a Coastal Zone Application for North Fish USA, LLC for a proposed facility at 200 Centerpoint Boulevard in New Castle, Delaware.

It is the professional opinion of Landmark Science & Engineering that the proposed activities at 200 Centerpoint Boulevard in New Castle, Delaware will not have any net negative environmental impacts after the mitigation and compensation measures are in place. The air emissions will be greatly reduced by the control device, and will offset by the reduction in overall air emissions due to the proposed compensation. The minor environmental impacts which the proposed activities will have will be offset entirely by the proposed offset measures. This is based off of our understanding of the projected site activities, the projected emissions, and the proposed smoke control device and compensation.

In the event that the air emissions control device fails, there will be an increase of approximately double in the air emissions until the device is corrected. The smokers will not be used if the control device stops working.

There will be no impacts to the flora, fauna, wetlands, floodplains, or stormwater runoff as there will be no changes to the exterior of the existing building. The raw materials used are just water, salt, fish and wood, so there are no safety concerns associated with the raw materials or the finished product.

If you have any questions, please feel free to contact us at (302) 323-9377.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas L. Seavey", is written over a horizontal line.

Douglas L. Seavey, P.E.  
Environmental Engineer

## Attachment H - Detailed Environmental Offset Proposal

## Smoke Emissions from Smokehouses

The smokehouses burn 100 pounds of wood per day on a typical day, but up to 200 pounds on a maximum day. DNREC Air Permitting Group said to use EPA Publication AP-42 for smokehouses to estimate the emissions from the fish smokers. This email and AP-42 are attached.

Per EPA Publication AP-42, a smokehouse generates 53 pounds of PM (mostly PM2.5) and 44 pounds of VOC (which should be modeled as methane) per ton of wood burned.

Table 1: Batch Smokehouse Emissions with No Scrubber

Pollutant	lbs pollutant /ton of wood	Tons wood/ Typical Day	lbs pollutant /Typical day	Tons of wood/ maximum Day	lbs pollutant /maximum day
Total PM	53	0.05	2.65	0.1	5.3
Total VOC	44	0.05	2.2	0.1	4.4

Notes: 1. The combined smoking systems burn 100 pounds of wood on a typical day, but 200 pounds on a maximum day.

Table 2 - Batch Smokehouse Emissions- With Wet Scrubber

Pollutant	lbs pollutant /typical day with no scrubber	lbs pollutant /maximum day with no scrubber	lbs pollutant /typical day with scrubber	lbs pollutant /maximum day with scrubber	Maximum Emissions per Year with Scrubber (tons)	Offset Amount (tons per Year)	Offset Radio
Total PM	2.65	5.3	0.8215	1.643	0.256308	0	
Total VOC	2.2	4.4	0.33	0.66	0.10296	0	
Total CO2	0	0	0	0	0	0.48	1.33605

Notes: 1. The combined smoking systems burn 100 pounds of wood on a typical day, but 200 pounds on a maximum day.

The total is based on every day being a maximum day, so the actual annual emissions would be lower.

2. US EPA Publication AP-42 states a 69% reduction in PM from a wet scrubber and a 85% reduction in VOC emissions.

3. Emissions are based on operating 12 hours per day, 6 days per week, 52 weeks per year

4. The selected wet scrubber, the Smoki Smoke Zapper, claims a 95% reduction in PM and 50% reduction in odor but the lower AP-42 reduction factors were used to be conservative.



## Appendix H - Offset Proposal

The wood smokers at North Fish generate a maximum of 0.26 tons of particulate matter (as PM<sub>2.5</sub>) and 0.1 ton of methane per year. Due to the difficulty of directly reducing methane and PM<sub>2.5</sub> emissions on a small scale such as are being generated by this project, North Fish USA plans to plant 20 trees around the Centerpoint Business Park to offset the effects of the methane and PM<sub>2.5</sub> emissions. Each tree adsorbs an average of 48 pounds of carbon dioxide per year, so the 20 trees will adsorb approximately 960 pounds (0.48 tons) of carbon dioxide per year. The trees do adsorb some particulate matter and methane directly, but will not adsorb 0.26 tons of particulate matter and 0.1 tons of methane per year. The trees will offset the environmental and health impacts of the particulate matter and methane by adsorbing approximately 0.48 tons of carbon dioxide per year. In addition, the trees will provide atmospheric cooling to reduce energy use by the buildings to reduce overall power plant emissions.

### Effect of PM<sub>2.5</sub> and Methane and Offset by Carbon Dioxide

The main impacts of PM<sub>2.5</sub> are towards human health, particularly on the lungs, and the environment, primarily by causing haze. Methane's primary impact in air is increasing global warming. Trees reduce levels of PM<sub>2.5</sub> and methane directly, but they mainly offset the effects of the PM<sub>2.5</sub> and methane by reducing the CO<sub>2</sub> in the air, which improves overall air quality and reduces heat locally and globally through reducing global warming.

### PM<sub>2.5</sub> and Methane Reduction by Trees

Trees absorb VOCs—such as methane—through their leaf stomata, where these compounds are then broken down or stored within plant tissues. According to a study published in *Environmental Pollution* (Nowak et al., 2014), urban trees and forests across the United States removed approximately 17.4 million tons of air pollutants in 2010, which included significant amounts of VOCs.

Trees also influence methane levels through indirect mechanisms in soils and surrounding ecosystems. Certain tree species promote **methanotrophic bacteria** activity in their root zones and nearby soils—microorganisms that consume methane and convert it into less harmful carbon dioxide which can then be absorbed by the trees. For example, forested soils are known to act as net methane sinks, particularly in temperate and boreal ecosystems, as shown in studies by Dutaur & Verchot (2007). Additionally, tree roots improve soil structure and aeration, which encourages aerobic conditions—favorable for methane oxidation rather than methane production, which dominates in anaerobic environments like wetlands or compacted urban soils.

In addition to gas-phase pollutants, trees play a critical role in mitigating *particulate matter*, especially fine particles like PM<sub>2.5</sub> and PM<sub>10</sub>. Leaves, twigs, and bark physically trap airborne particles, which are then washed off by rainfall or deposited onto the ground. Studies have shown that in cities like Atlanta and New York, trees can remove between 4.7 to 64.5 tons of

PM<sub>2.5</sub> annually (Nowak et al., 2013), resulting in quantifiable improvements in public health—including the prevention of 1 to 8 premature deaths per year per city. Wind tunnel experiments and field modeling confirm that strategically placed vegetation near roads and buildings can reduce ambient PM concentrations by 7% to 24%, depending on species and structure (Jeanjean et al., 2017). This passive filtration is most effective in open areas or around schools and parks, where people are directly exposed to traffic-related pollution.

### Offset Tree Selection

Ten of the trees planted will be Loblolly pines, five Scarlet Oak and the rest Wild Black Cherry. These trees were selected as they are relatively easy to grow, are relatively easy to maintain, are native to New Castle County, and should do well in the area they are planted in. McConnell Development has agreed to plant the trees and will maintain them around the business park. They will be monitored annually, and will be replaced if they die or fail to thrive.

Some of the trees will be planted around the building at 200 Centerpoint Boulevard to provide a cooling effect on this and an adjacent building. These trees will be deciduous trees such as Scarlet Oak and Wild Black Cherry to provide increased cooling effect in the summer, when the leaves are on the trees, and allowing more sunlight and heat to the buildings in the winter, when the trees are dormant. The remaining trees, most of which will be Loblolly Pines, will be planted around a parking lot adjacent to a residential community. The planting plan is included in the Attachments. Planting trees around commercial properties provides a significant cooling effect that directly reduces a business's energy consumption, particularly for air conditioning, and indirectly lowers emissions of PM, VOCs, and CO<sub>2</sub> from power generation. Planting trees, especially evergreen trees, around parking areas provides passive filtration to reduce PM, VOC, and CO<sub>2</sub> levels.

Loblolly pine trees (*Pinus taeda*) are uniquely well-suited to offset wood smoke emissions during the winter months due to their status as fast-growing, evergreen conifers with active photosynthesis year-round. Unlike deciduous trees that shed their leaves and cease carbon uptake during cold months, loblolly pines maintain needle foliage and continue photosynthetic activity even in winter. According to Teskey et al. (2008), loblolly pines exhibit significant wintertime photosynthetic rates, allowing them to absorb carbon dioxide (CO<sub>2</sub>) at a time when emissions from wood burning spike. Mature trees—especially fast-growing species like **loblolly pine**—can sequester between **48 to 100 pounds of CO<sub>2</sub> annually per tree** (U.S. Forest Service).

Beyond carbon sequestration, loblolly pines actively contribute to air purification by reducing pollutants like fine particulate matter (PM<sub>2.5</sub>), carbon monoxide (CO), and nitrogen oxides (NO<sub>x</sub>), which are all emitted in wood smoke. Their dense, needle-like foliage is highly effective at physically intercepting PM<sub>2.5</sub>, while their year-round metabolic activity allows for continuous gas exchange and uptake of VOCs and gaseous pollutants through stomata. Studies by Beckett et al. (2000) show that conifers like loblolly pine can filter 30–40% more particulate matter than many broadleaf species, especially when leaves are present year-round. This means loblolly pines not only help remove airborne particles from winter smoke but also maintain

environmental air-scrubbing capabilities when other trees are dormant and pollution levels are highest.

### Atmospheric Cooling Effect of Trees

Planting trees around building provides cooling through two primary mechanisms: *shading* and *evapotranspiration*. Shade from tree canopies lowers the surface and building temperatures by blocking solar radiation, while evapotranspiration—where water evaporates from leaves and soil—lowers surrounding air temperatures. According to a study by Akbari et al. (2001) published in *Energy and Buildings*, strategically planted trees can reduce surrounding air temperatures by up to 2–5°C (3.6–9°F), and lower peak building cooling loads by up to 30% in urban settings. As electricity demand for cooling falls, so does the output from fossil-fuel-powered plants—key sources of fine particulate matter (PM<sub>2.5</sub>), carbon monoxide (CO), and volatile organic compounds (VOCs).

Therefore, when evaluated holistically—through the lenses of carbon sequestration, pollutant filtration, and energy offset—the planting of enough trees not only compensates for wood smoke emissions but significantly outpaces them in environmental and health benefits.

### Studies on Particulate Matter (PM<sub>2.5</sub>) Removal & Health Benefits

- **Nowak et al. (2013):** *Modeled PM<sub>2.5</sub> removal by trees in ten U.S. cities and associated health effects*. Trees in cities like Atlanta and New York remove between **4.7 to 64.5 tonnes/year** of PM<sub>2.5</sub>, reducing 1–8 premature deaths per city annually. doi:10.1016/j.envpol.2013.03.050
- **Nowak et al. (2014):** *Tree and forest effects on air quality and human health in the United States*. Across the U.S., trees and forests removed **17.4 million tonnes** of air pollution in 2010, resulting in ~850 avoided deaths and 670,000 fewer respiratory symptoms. doi:10.1016/j.envpol.2014.05.02
- **Jeanjean, Monks & Leigh (2016):** *Modelling the effectiveness of urban trees and grass on PM<sub>2.5</sub> reduction via dispersion and deposition at a city scale*. In Leicester, UK, urban greenery reduced PM<sub>2.5</sub> via **9% dispersion**, and **11.8 t/year** removal by trees. [pubs.acs.org](https://pubs.acs.org)
- **Wind-tunnel study (2017):** *Effect of trees on PM<sub>2.5</sub> distribution around buildings*. Using cypress foliage in wind tunnels showed about **20% lower PM<sub>2.5</sub>** concentrations near buildings. [ui.adsabs.harvard.edu+8pubmed.ncbi.nlm.nih.gov+8arxiv.org+8](https://ui.adsabs.harvard.edu+8pubmed.ncbi.nlm.nih.gov+8arxiv.org+8)

### Studies on methane removal by trees

- Dutaur, L., & Verchot, L. V. (2007). *A global inventory of the soil CH<sub>4</sub> sink*. Global Biogeochemical Cycles, 21(4). <https://doi.org/10.1029/2006GB002734>
- Tian, H., et al. (2016). *The terrestrial biosphere as a net source of greenhouse gases to the atmosphere*. Nature Communications, 7, 13451. <https://doi.org/10.1038/ncomms13451>

- Gauci, Vincent, et al (2024). Global Atmospheric Methane Uptake By Upland Tree Woody Surfaces. *Nature*. <https://www.nature.com/articles/s41586-024-07592-w>

Links to papers:

<https://doi.org/10.1016/j.envpol.2013.03.050>

<https://doi.org/10.1016/j.envpol.2014.05.028>

<https://www.sciencedirect.com/science/article/pii/S1352231016304059>

<https://pubmed.ncbi.nlm.nih.gov/29232615/>

<https://www.nps.gov/articles/000/uerla-trees-air-pollution.htm>

- Akbari, H., Pomerantz, M., & Taha, H. (2001). *Cool surfaces and shade trees to reduce energy use and improve air quality in urban areas*. *Solar Energy*, 70(3), 295–310. [https://doi.org/10.1016/S0038-092X\(00\)00089-X](https://doi.org/10.1016/S0038-092X(00)00089-X)
- Nowak, D. J., & Crane, D. E. (2002). *Carbon storage and sequestration by urban trees in the USA*. *Environmental Pollution*, 116(3), 381–389. [https://doi.org/10.1016/S0269-7491\(01\)00214-7](https://doi.org/10.1016/S0269-7491(01)00214-7)
- Teskey, R. O., et al. (2008). *Responses of tree species to heat waves and extreme heat events*. *Plant, Cell & Environment*. <https://doi.org/10.1111/pce.12417>
- Beckett, K. P., Freer-Smith, P. H., & Taylor, G. (2000). *Effective tree species for local air-quality management*. *Journal of Arboriculture*, 26(1), 12–19.
- Niinemets, Ü., & Valladares, F. (2006). *Tolerance to shade, drought, and waterlogging of temperate Northern Hemisphere trees and shrubs*. *Ecological Monographs*, 76(4), 521–547. [https://doi.org/10.1890/0012-9615\(2006\)076\[0521:TTSDAW\]2.0.CO;2](https://doi.org/10.1890/0012-9615(2006)076[0521:TTSDAW]2.0.CO;2)
- U.S. Forest Service Carbon Sequestration Estimates: <https://www.fs.usda.gov/nrs/pubs/46102>

**From:** Michael McConnell <mmcconnell@mcconnelldevelopment.com>

**Sent:** Thursday, July 3, 2025 9:45 AM

**To:** Doug Seavey <DSeavey@mckimcreed.com>

**Subject:** Re: Message from "RNP5838797C069F"

Doug

We can increase it to 10 Loblolly Pine, with 5 Scarlett Oak and 5 Wild Black Cherry.

Thanks

Michael

**Michael McConnell**

*Commercial Sales & Leasing Manager*

**McConnell Development Inc.**

**m: 302-540-8690**

**e: [mmcconnell@mcconnelldevelopment.com](mailto:mmcconnell@mcconnelldevelopment.com)**

**a: 2710 Centerville Rd, Suite 104, Wilmington DE 19808**

---

**From:** Douglas Seavey <[dougs@landmark-se.com](mailto:dougs@landmark-se.com)>

**Sent:** Thursday, July 3, 2025 9:43 AM





## Legend

● Deciduous Trees

▲ Pine Trees

200 Centerpoint

Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**Figure 5**  
**200 Centerpoint Boulevard**  
Tree Locations

0 150 300 600 Feet

Christiana Executive Campus  
200 Continental Drive, Suite 400  
Newark Delaware 19713  
302-323-9377



## 9.5.2 Meat Smokehouses

### 9.5.2.1 General<sup>1-3,7-9</sup>

Meat smokehouses are used to add flavor, color, and aroma to various meats, including pork, beef, poultry, and fish. Smokehouses were at one time used to smoke food for preservation, but refrigeration systems have effectively eliminated this use.

Four operations are typically involved in the production of smoked meat: (1) tempering or drying, (2) smoking, (3) cooking, and (4) chilling. However, not all smoked foods are cooked, thus eliminating the cooking and chilling processes from some operations. Important process parameters include cooking/smoking time, smoke generation temperature, humidity, smoke density, type of wood or liquid smoke, and product type.

The two types of smokehouses that are almost exclusively used are batch and continuous smokehouses. Figures 9.5.2-1 and 9.5.2-2 show typical batch and continuous smokehouses, respectively. Both types of systems circulate air at the desired process conditions (temperature, humidity, and smoke density) over the surface of the meat. In batch smokehouses, the meat is placed on stationary racks for the entire smoking process. In continuous smokehouses, the meat is hung on sticks or hangers and then conveyed through the various zones (smoking, heating, and chilling) within the smokehouse. Following processing in the smokehouse, the product is packaged and stored for shipment.

Several methods are used to produce the smoke used in smokehouses. The most common method is to pyrolyze hardwood chips or sawdust using smoke generators. In a typical smoke generator, hardwood chips or sawdust are fed onto a gas- or electrically-heated metal surface at 350° to 400°C (662° to 752°F). Smoke is then ducted by a smoke tube into the air recirculation system in the smokehouse. Smoke produced by this process is called natural smoke.

Liquid smoke (or artificial smoke), which is a washed and concentrated natural smoke, is also used in smokehouses. This type of smoke (as a fine aerosol) can be introduced into a smokehouse through the air recirculation system, can be mixed or injected into the meat, or can be applied by drenching, spraying, or dipping.

### 9.5.2.2 Emissions And Controls<sup>1-2,4</sup>

Particulate matter (PM), carbon monoxide (CO), volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), organic acids, acrolein, acetaldehyde, formaldehyde, and nitrogen oxides have been identified as pollutants associated with meat smokehouses. The primary source of these pollutants is the smoke used in the smokehouses. Studies cited in Reference 1 show that almost all PM from smoke has an aerodynamic diameter of less than 2.0 micrometers (µm). Acetic acid has been identified as the most prevalent organic acid present in smoke, followed by formic, propionic, butyric, and other acids. Also, acetaldehyde concentrations have been shown to be about five times greater than formaldehyde concentrations in smoke. Heating zones in continuous smokehouses (and the cooking cycle in batch smokehouses) are a source of odor that includes small amounts of VOC. The VOC are a result of the volatilization of organic compounds contained in the meat or the smoke previously applied to the meat. Heating zones are typically heated with ambient air that is passed over electrically-heated or steam-heated coils (steam from boilers used elsewhere at the facility). Therefore, heating zones are not a source of combustion products. Factors that may effect

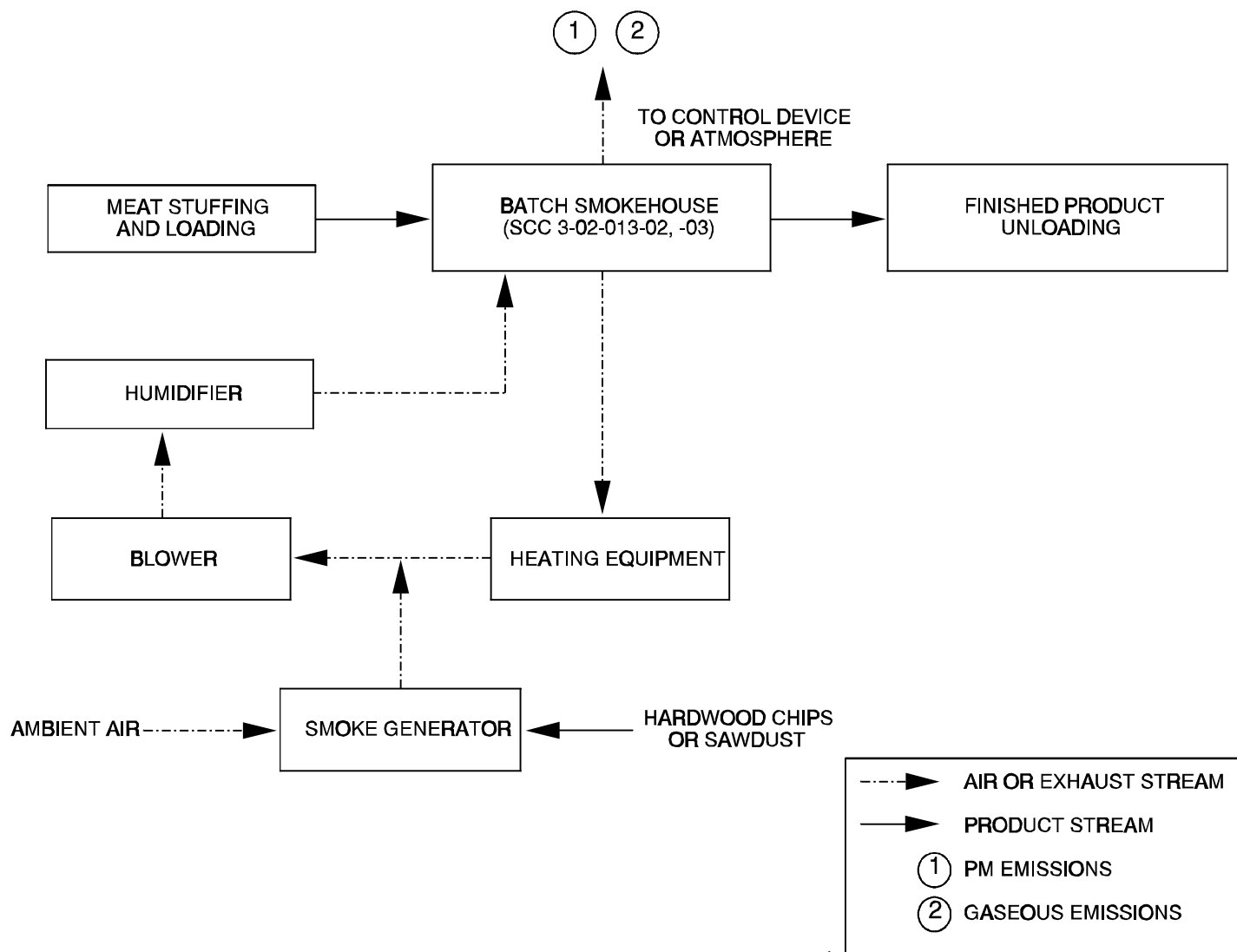


Figure 9.5.2-1. Typical batch smokehouse.<sup>1</sup>  
(Source Classification Code in parentheses.)



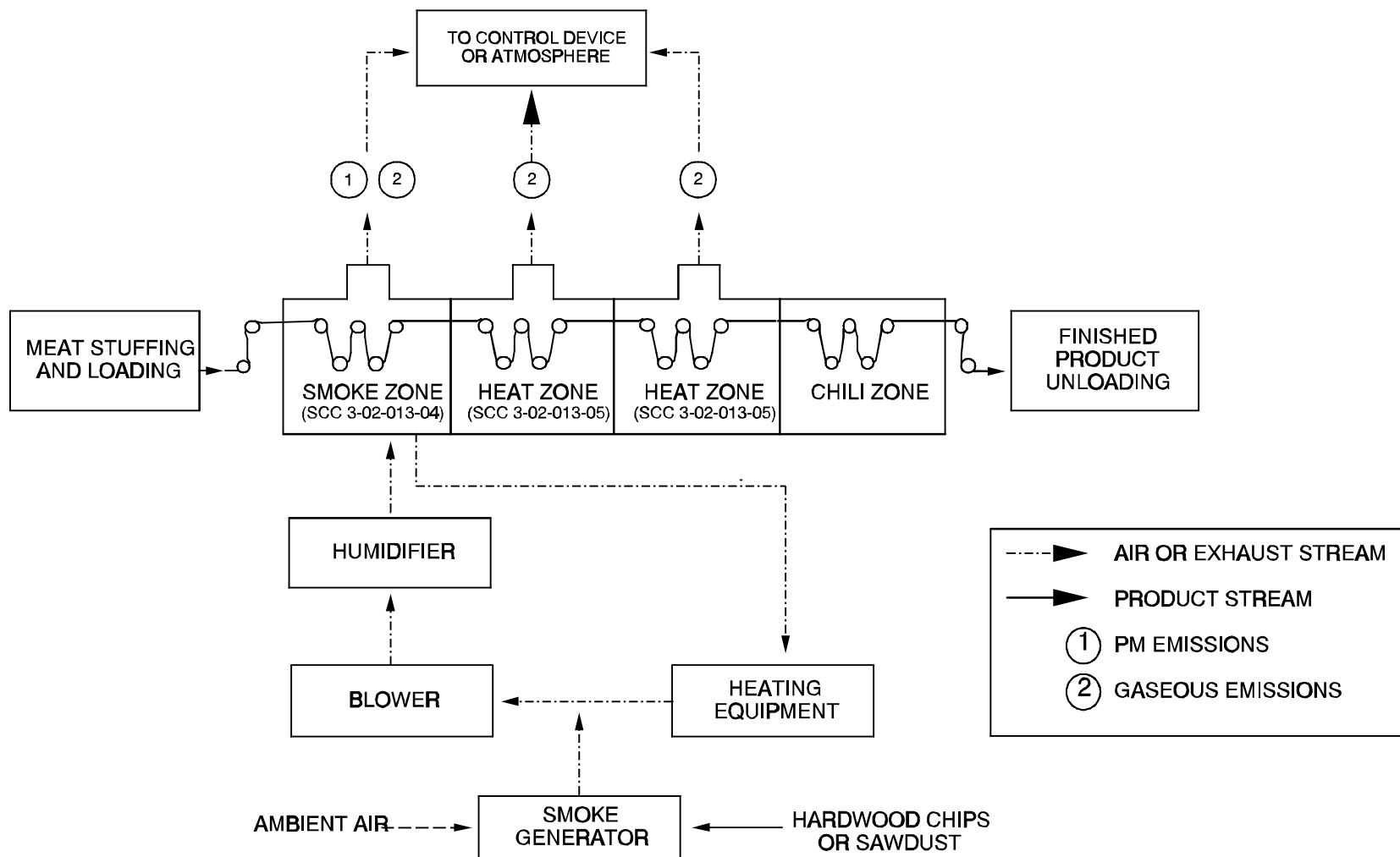


Figure 9.5.2-2. Typical continuous smokehouse.<sup>1</sup>  
(Source Classification Code in parentheses.)

smokehouse emissions include the amount and type of wood or liquid smoke used, the type of meat processed, the processing time, humidity, and the temperature maintained in the smoke generators.

Control technologies used at meat smokehouses include afterburners, wet scrubbers, and modular electrostatic precipitators (ESP). Emissions can also be reduced by controlling important process parameters. An example of this type of process control is maintaining a temperature not higher than about 400°C (752°F) in the smoke generator, to minimize the formation of PAH.

Afterburners are an effective control technology for PM, organic gases, and CO from smokehouses, but energy requirements may be costly for continuous smokehouse operations. Also, the additional air pollution resulting from afterburner fuel combustion makes afterburners a less desirable option for controlling smokehouse emissions.

Wet scrubbers are another effective control technology for both PM and gaseous emissions. Different types of scrubbers used include mist scrubbers, packed bed scrubbers, and vortex scrubbers. Mist scrubbers introduce a water fog into a chamber, and exhaust gases are then fed into the chamber and are absorbed. Packed bed scrubbers introduce the exhaust gases into a wetted column containing an inert packing material in which liquid/gas contact occurs. Vortex scrubbers use a whirling flow pattern to shear water into droplets, which then contact the exhaust gases. Limited test data (from Reference 4) show a vortex scrubber (followed by a demister) achieving about 51 percent formaldehyde removal, 85 percent total organic compound removal, 39 percent acetic acid removal, and 69 percent PM removal. Particulate matter removal efficiencies for scrubbers can be increased through the use of surfactants, which may enhance the capture of smoke particles that do not combine with the scrubber water.

Electrostatic precipitators are effective for controlling PM emissions. Combined control technologies, such as a wet scrubber for gaseous emission control followed by an ESP for PM removal, may also be used to control emissions from smokehouses.

Smokehouse control devices are operated during the smoking cycle and are sometimes bypassed during the cooking and cooling cycles. Continuous smokehouses may include separate vents for exhaust streams from the different zones, thus minimizing the air flow through the control device.

The average emission factors for meat smokehouses are shown in Tables 9.5.2-1 and 9.5.2-2. These emission factors are presented in units of mass of pollutant emitted per mass of wood used to generate smoke. Normally, emission factors are based on either units of raw material or units of product. In this industry, the amount of smoke flavor applied to the meats varies; consequently the emissions are dependent on the quantity of wood (or liquid smoke) used, rather than the quantity of meat processed. The emission factors presented in Tables 9.5.2-1 and 9.5.2-2 were developed using data from only two facilities and, consequently, may not be representative of the entire industry.

Table 9.5.2-1. EMISSION FACTORS FOR BATCH AND CONTINUOUS MEAT SMOKEHOUSES<sup>a</sup>

EMISSION FACTOR RATING: D

Process	Filterable PM		Condensable PM			Total PM	
	PM	PM-10	Inorganic	Organic	Total	PM	PM-10
Batch smokehouse, smoking cycle <sup>b</sup> (SCC 3-02-013-02)	23	ND <sup>c</sup>	11	19	30	53	ND <sup>c</sup>
Continuous smokehouse, smoke zone <sup>d</sup> (SCC 3-02-013-04)	66	ND <sup>c</sup>	36	39	75	140	ND <sup>c</sup>
Continuous smokehouse, smoke zone, with vortex wet scrubber and demister <sup>d</sup> (SCC 3-02-013-04)	13	ND <sup>c</sup>	9.8	6.0	16	29	ND <sup>c</sup>

<sup>a</sup> Emission factor units are lb/ton of wood or sawdust used. ND = no data available. SCC = Source Classification Code.

<sup>b</sup> Reference 5.

<sup>c</sup> Although data are not directly available, Reference 1 states that all PM from smoke is less than 2 micrometers in aerodynamic diameter.

<sup>d</sup> References 4-6.

Table 9.5.2-2. EMISSION FACTORS FOR BATCH AND CONTINUOUS MEAT SMOKEHOUSES<sup>a</sup>

Process	VOC	EMISSION FACTOR RATING	Formaldehyde	EMISSION FACTOR RATING	Acetic Acid	EMISSION FACTOR RATING
Batch smokehouse, smoking cycle <sup>b</sup> (SCC 3-02-013-02)	44	D	ND	NA	ND	NA
Batch smokehouse, cooking cycle (SCC 3-02-013-03)	ND	NA	ND	NA	ND	NA
Continuous smokehouse, smoke zone <sup>c</sup> (SCC 3-02-013-04)	17	D	1.3	E	4.5	E
Continuous smokehouse, smoke zone, with vortex wet scrubber and demister <sup>d</sup> (SCC 3-02-013-04)	4.4	E	0.62	E	2.8	E
Continuous smokehouse, heat zone (SCC 3-02-013-05)	ND	NA	ND	NA	ND	NA

<sup>a</sup> Emission factor units are lb/ton of wood or sawdust used, unless noted. ND = no data available. NA = not applicable. SCC = Source Classification Code.

<sup>b</sup> Reference 5. VOC, measured as methane.

<sup>c</sup> References 5-6. VOC, measured as methane.

<sup>d</sup> Reference 4. VOC, measured as methane. VOCs were measured on a gas chromatograph calibrated against acetaldehyde, and the results were converted to a methane basis.

## References For Section 9.5.2

1. J. R. Blandford, "Meat Smokehouses", in Chapter 13, Food And Agriculture Industry, *Air Pollution Engineering Manual*, Van Nostrand Reinhold Press, 1992.
2. Written communication from J. M. Jaeckels, Oscar Mayer Foods Corporation, Madison, WI, to S. Lindem, Wisconsin Department of Natural Resources, Madison, WI, April 1, 1992.
3. Joseph A. Maga, *Smoke In Food Processing*, CRC Press, Incorporated, Boca Raton, FL, 1988.
4. *KSI-2 & KSI-3 Continuous Smokehouses Stack Emissions Testing*, Hillshire Farm & Kahn's, New London, WI, September 19-20, 1991.
5. *Report On Diagnostic Testing*, Oscar Mayer Foods Corporation, Madison, WI, January 13, 1994.
6. Written correspondence from D. Sellers, Wisconsin Department of Natural Resources, Madison, WI, to Wisconsin Department of Natural Resources Files, Madison, WI, June 17, 1994.
7. Written communication from J. M. Jaeckels, BT<sup>2</sup>, Inc., Madison, WI, to D. Safriet, U. S. Environmental Protection Agency, Research Triangle Park, NC, December 15, 1994.
8. Telephone communication between B. L. Shrager, Midwest Research Institute, Cary, NC, and J.M. Jaeckels, BT<sup>2</sup>, Inc., Madison, WI, March 16 and 17, 1995.
9. Emission Factor Documentation, AP-42 Section 9.5.2, Meat Smokehouses, EPA Contract No. 68-D2-0159, Midwest Research Institute, Cary, NC, September 1995.

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**RE: North Fish USA Air emissions**

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**From** Douglas Seavey <dougs@landmark-se.com>  
**Date** Tue 4/8/2025 9:15 AM  
**To** Bediako, Phanuel (DNREC) <Phanuel.Bediako@delaware.gov>

Thank you.

---

**From:** Bediako, Phanuel (DNREC) <Phanuel.Bediako@delaware.gov>  
**Sent:** Tuesday, April 8, 2025 7:57 AM  
**To:** Douglas Seavey <dougs@landmark-se.com>  
**Subject:** RE: North Fish USA Air emissions

Hi Douglas,  
You can use AP-42 Emission Factors from Section 9.5.2, Meat Smokehouses.



Phanuel C. K. Bediako, Ph.D.  
Engineer  
☎ 302-739-9402 📠 302-739-3106  
✉ [phanuel.bediako@delaware.gov](mailto:phanuel.bediako@delaware.gov)  
100 W. Water Street Suite 6A, Dover DE 19904  
🌐 [dnrec.delaware.gov](http://dnrec.delaware.gov)



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**From:** Douglas Seavey <[dougs@landmark-se.com](mailto:dougs@landmark-se.com)>  
**Sent:** Monday, April 07, 2025 7:52 PM  
**To:** Bediako, Phanuel (DNREC) <[Phanuel.Bediako@delaware.gov](mailto:Phanuel.Bediako@delaware.gov)>  
**Subject:** North Fish USA Air emissions

Hi Phanuel,  
I am working on the Coastal Zone permit for North Fish USA and was wondering if Air Permitting had any standard emissions estimates for wood smoke that you use, as the numbers I have seen have varied a great deal. They will be burning 60-100 pounds of hickory per day in an industrial smoker, and I have seen a wide range of what that would produce.

Do you have any guidance?

Thank you  
Doug

## Appendix 2

Attachment I – CHRIS Map

Attachment J – Photos of Equipment

Attachment K – Wet Scrubber Information

Attachment L - Rare and Endangered Species Environmental Coordination

Attachment M - Conditional No Exposure Permit

## Attachment I – CHRIS Map



# National Register-listed Properties (Basemap - USGS National Map)



April 3, 2025

Other Historic Properties

◆ National Register-listed

● other surveyed, assigned CRS inventory #

DE\_Boundaries - Municipalities

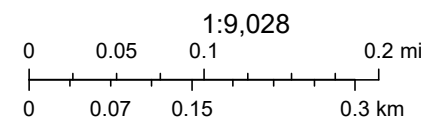
Delaware 2017 Imagery

Red: Red

Green: Green

Blue: Blue

State Parcels



Surdex Corp, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National



## Attachment J – Photos of Equipment



Gutting machine used to remove insides from the fish.



Vats used to thaw and to brine fish.



Smokehouse used to smoke fish.



Additional image of smoker used to smoke fish.



Rack used to hold fish for processing.





Racks filled with fish.



## ULTRAVAC<sup>®</sup> 2100

DOUBLE CHAMBER VACUUM  
PACKAGING MACHINE

  
**UltraSource<sup>®</sup>**  
PROCESSING | PACKAGING & LABELING | SUPPLIES  
UltraSourceUSA.com | 800.777.5624

UltracVac 2100 to vacuum pack smoked fish.



Example of the wood chips used to smoke the fish.





Note: the above image may differ slightly from the final product.



Charger for electric fork lifts.

## Attachment K – Wet Scrubber Information



(844) GO SMOKI (Toll-free in USA)  
(844) 467-6654 | E: info@smokiusa.com

[www.smokiusa.com](http://www.smokiusa.com)

# SMOKE ZAPPER

- ✓ REDUCE EMISSIONS
- ✓ LOW-COST MAINTENANCE
- ✓ IMPROVE CHIMNEY SAFETY



## MODEL OVERVIEW:

The Smoke Zapper is designed to handle soot/odor emissions from wood and coal red ovens. Each Smoke Zapper model manufactures an induced draft matched to the appropriate oven size which in most installations creates an adequate negative pressure system without the use of an additional fan. The naturally created draft is built to match the needs of a solid fuel oven without cooling the oven or allowing smoke to escape through the oven mouth.

### Up to 850 CFM Rating Oven

The Smoke Zapper requires a direct chimney connection to the flue of a solid-fuel oven, and can be vented through a pre-existing solid fuel chimney line or its own dedicated line.

## POLLUTION CONTROL FOR SOLID-FUEL OVENS:

The Smoke Zapper is the leading pollution control system designed for the specific challenges of wood and coal red ovens. The patented filtration technology that separates the Smoke Zapper from its competition lies in its use of a high-pressure water nozzle array. This array creates an induced draft which pulls smoke into the unit, where it is simultaneously rinsed of particulate matter and cooled to a safe temperature. **The resulting vapor is then released into the atmosphere at an average temperature of 100°F, with up to a 95% reduction of particulate matter and a 50% reduction in odor.**

The Smoke Zapper is the practical solution to fresh air and odor complaints, fire safety issues and regional/federal environmental codes. With its flexible installation method, low maintenance costs and engineered focus, the Smoke Zapper remains the unrivaled choice in pollution control systems for wood and coal red ovens.

**USA HEADQUARTERS** 601 N Main St.  
Brewster, NY 10509

One-year conditional warranty on unit and parts.  
Smoki USA reserves the right to change design or specifications without notice.





(844) GO SMOKI (Toll-free in USA)  
(844) 467-6654 | E: info@smokiusa.com

[www.smokiusa.com](http://www.smokiusa.com)

PHYSICAL FEATURES:	SZ 200	SZ 250	SZ 300
TOTAL DIMENSIONS (W x D x H)	38.5" x 28.75" x 31.5"	38.5 x 28.75" x 31.5"	44.5" x 33" x 33"
WEIGHT (EMPTY)	200 LBS	200 LBS	330 LBS
OPERATING WEIGHT	354 LBS	354 LBS	590 LBS
WATER TANK CAPACITY	18.5 GALLONS	18.5 GALLONS	31 GALLONS
OPERATING TEMPERATURE	14°F - 120°F	14°F - 120°F	14°F - 120°F
CHIMNEY CONNECTION	8"	10"	12"
ELECTRICAL FEATURES:			
RATED VOLTAGE / MAIN FREQ.	1 PHASE x 115V / 60HZ	1 PHASE x 115V / 60HZ	1 PHASE x 115V / 60HZ
RATED CURRENT / RATED POWER	14.6 A / 1.5 HP	14.6 A / 1.5 HP	14.6 A / 1.5 HP
PLUMBING REQUIREMENTS:			
WATER CONSUMPTION	9 GALLONS / HR	9 GALLONS / HR	9 GALLONS / HR
DRAIN CONNECTION	1.5" TO GREASE TRAP	1.5" TO GREASE TRAP	2" TO GREASE TRAP
WATER CONNECTION	0.5" TAP WATER LINE	0.5" TAP WATER LINE	0.5" TAP WATER LINE
AIR FLOW:			
MAXIMUM AIR FLOW	350 CFM	450 CFM	850 CFM
STATIC PRESSURE	0.2" H <sub>2</sub> O	0.2" H <sub>2</sub> O	0.2" H <sub>2</sub> O
MINIMUM REQUIRED MAINTENANCE SPACE:			
ABOVE UNIT	24"	24"	24"
UNIT FRONT	36"	36"	36"
UNIT BACK	18" *	18" *	18" *
UNIT SIDE	18" *	18" *	18" *

\* 18" to combustibles per NFPA 96 - Clause 4.2.3 - 0" to non-combustible

#### USA HEADQUARTERS

601 N Main St.  
Brewster, NY 10509

One-year conditional warranty on unit and parts.  
Smoki USA reserves the right to change design or specifications without notice.



(844) GO SMOKI (Toll-free in USA)  
(844) 467-6654 | E: info@smokiusa.com

www.smokiusa.com

# SMOKE ZAPPER 300



**Description:** Unit shall be factory assembled solid fuel pollution control unit for connection to a direct-connected wood fired oven or smoker. Unit is capable of significantly reducing smoke, grease, and odor from the exhaust air stream.

**Certifications:** Unit shall be listed by UL LLC with file number MH60726 and conform to UL1978 Standards.

**Housing:** The Smoke Zapper housing shall be constructed of 300 and 400 series stainless steel. All metal in contact with the air-stream shall be constructed of 304 and 340 series stainless steel. Internal and external seams shall be continuously welded. The filter access door shall be lined with high temperature silicon gasket capable of withstanding the UL1978 abnormal temperature test at 2000°F. The Smoke Zapper housing shall be rated for exterior and interior installation.

**Cabinet:** The cabinet shall be constructed of 304 series stainless steel and shall be waterproof. The cabinet shall provide access to the water recycle tank access door, electrical connection box, fresh water intake, water drain system, and water pressure gauges.

**Nozzle Array Section:** The nozzle array shall feature a bank of high-pressure steel water nozzles which spray in the exhaust flow direction. The nozzle array section shall provide pressurized recycled water via the internal pump system. The nozzle array section shall not require regular maintenance.

## PHYSICAL FEATURES

*Total Dimensions:* W x D x H: 44.5" x 33" x 33"  
*Weight (Empty):* 330 lbs  
*Operational Weight:* 590 lbs  
*Water Tank Capacity:* 31 gallons  
*Operational Temperature:* 14°F to 120°F  
*Chimney Connection:* 12" diameter

## ELECTRICAL FEATURES

*Rated Voltage:* 1 Phase x 115V  
*Frequency:* 60 Hz  
*Current:* 14.6 A  
*Motor Power:* 1.5 HP

## PLUMBING REQUIREMENTS

*Water Consumption:* 9 gallons/hr  
*Wastewater Drain Connection:* 2" diameter to grease trap  
*Fresh Water Connection:* 0.5" cold tap line

## VENTILATION CHARACTERISTICS

*Maximum Air Flow:* 850 cfm  
*Static Pressure:* 0.2 H<sub>2</sub>O

## MINIMUM REQUIRED MAINTENANCE SPACE

*Above Unit:* 24"  
*Unit Front:* 36"  
*Unit Back:* 18"\*  
*Unit Side:* 18"\*

\* 18" to combustibles per NFPA 96 -  
Clause 4.2.3 - 0" to non-combustible

## USA HEADQUARTERS

601 N Main St.  
Brewster, NY 10509

One-year conditional warranty on unit and parts. Smoki USA reserves the right to change design or specifications without notice.

Doc#: SZ300-070318 | Revised Summer 2018.

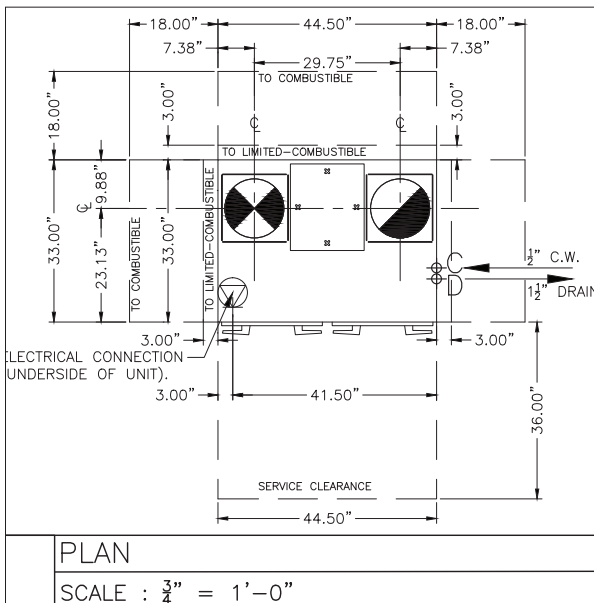
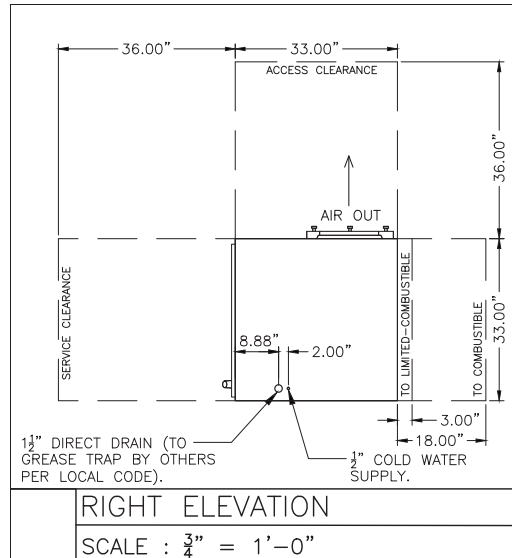
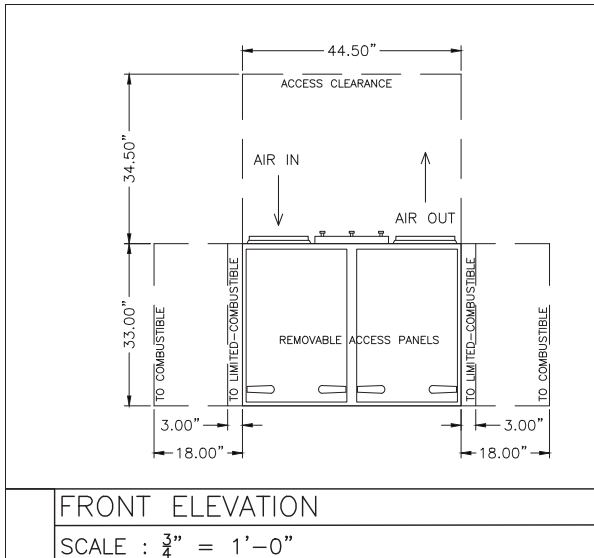
UL 1978  
File#: MH60726



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(844) 467-6654 | E: info@smokiusa.com

www.smokiusa.com

# SMOKE ZAPPER 300



## USA HEADQUARTERS

601 N Main St.  
Brewster, NY 10509

One-year conditional warranty on unit and parts.  
Smoki USA reserves the right to change design or specifications without notice.

Doc#: SZ300-070318 | Revised Summer 2018.

UL 1978  
File#: MH60726



Attachment L - Rare and Endangered Species  
Environmental Coordination



April 2, 2025

C3160

Danielle Ellis  
Environmental Review Coordinator  
Delaware Division of Fish and Wildlife  
6180 Hay Point Landing Road  
Smyrna, Delaware 19977

**RE: 200 CENTERPOINT BLVD  
TAX PARCEL 21-013.00-103  
ENVIRONMENTAL IMPACT ASSESSMENT**

Dear Ms. Ellis:

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 subject property.

The 6.28-acre subject property is located at 200 Centerpoint Blvd in Centerpoint Business Complex, New Castle, Delaware. The subject property consisted of an existing 81,792 ft<sup>2</sup> concrete and steel commercial structure surrounded by paved parking and access areas, mowed lawn areas and scattered landscaped areas. The parcel is surrounded by other buildings in the industrial park. North Fish USA, Inc. intends to expand their business into the vacant structure and is applying for a Coastal Zone Program permit.

The entire subject property is located outside the 100-year floodplain; and there are no wetlands or Waters of the U.S. within the subject property.

Please refer to the attached figures and IPaC letter for details, and please contact our office if you have any questions or require further information.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas L. Seavey", is written over a light blue rectangular background.

Douglas L. Seavey, P.E.  
Environmental Engineer  
Enclosures





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Chesapeake Bay Ecological Services Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401-7307  
Phone: (410) 573-4599 Fax: (410) 266-9127



In Reply Refer To:

04/02/2025 13:29:54 UTC

Project Code: 2025-0077155

Project Name: 200 Centerpoint Boulevard

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Chesapeake Bay Ecological Services Field Office**

177 Admiral Cochrane Drive

Annapolis, MD 21401-7307

(410) 573-4599

## PROJECT SUMMARY

Project Code: 2025-0077155

Project Name: 200 Centerpoint Boulevard

Project Type: Mixed-Use Construction

Project Description: Use the existing building to smoke fish for retail sale. There will be no new construction beyond what is existing presently.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.661767,-75.58883600842529,14z>



Counties: New Castle County, Delaware

## ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Proposed Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

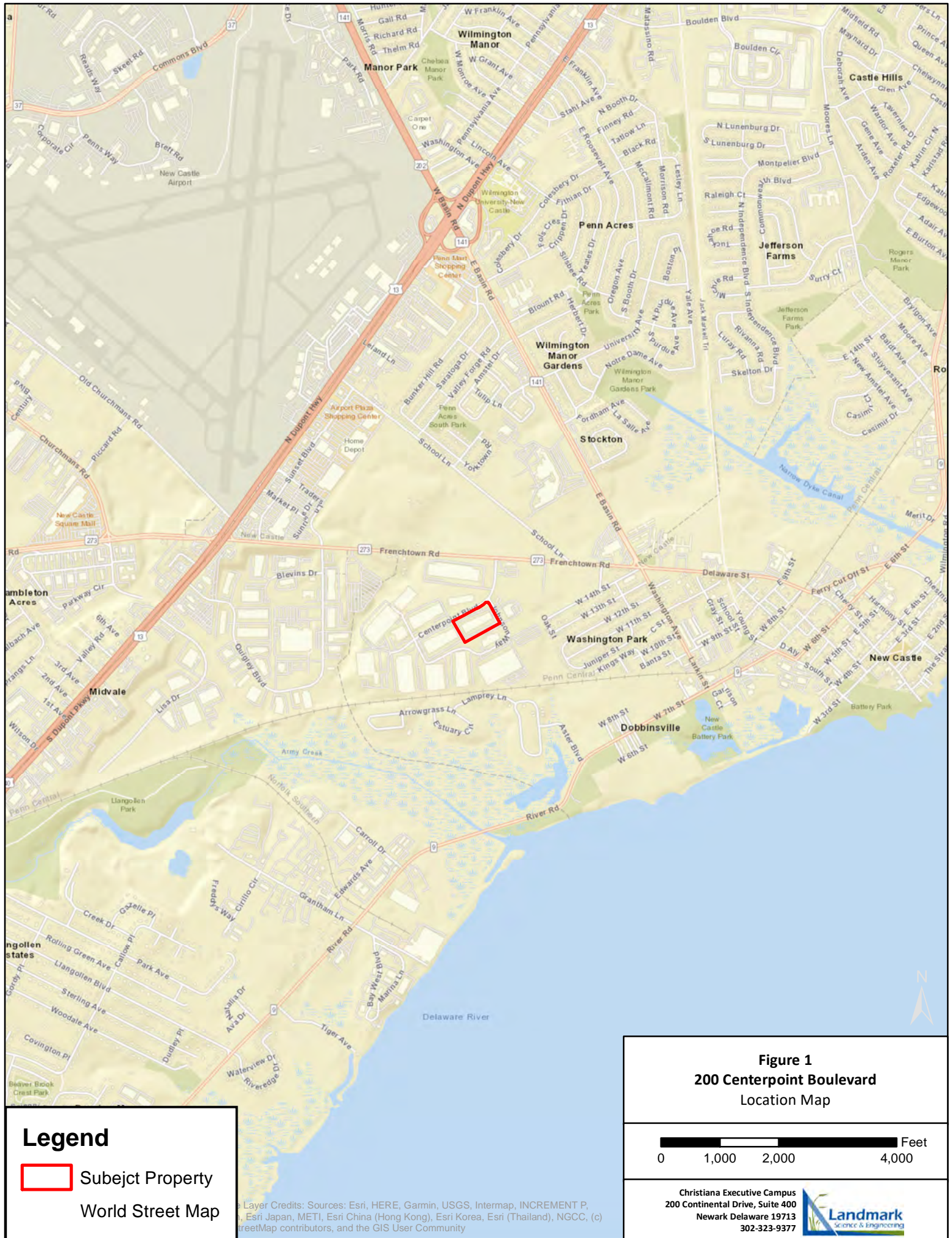
## **IPAC USER CONTACT INFORMATION**

Agency: Delaware Department of Natural Resources and Environmental Control  
Name: Douglas Seavey  
Address: 200 Continental Drive  
Address Line 2: Suite 400  
City: Newark  
State: DE  
Zip: 19713  
Email: douglseavey@gmail.com  
Phone: 3025610981

## **LEAD AGENCY CONTACT INFORMATION**

Lead Agency: Delaware Department of Natural Resources and Environmental Control



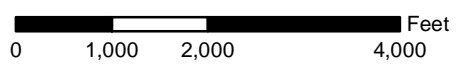


**Legend**

 Subejct Property

 World Street Map

**Figure 1**  
**200 Centerpoint Boulevard**  
**Location Map**



Christiana Executive Campus  
200 Continental Drive, Suite 400  
Newark Delaware 19713  
302-323-9377



Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) StreetMap contributors, and the GIS User Community





## Legend

Subject Property

Map Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**Figure 2**  
**200 Centerpoint Boulevard**  
**Aerial Imagery**

0 100 200 400 Feet

Christiana Executive Campus  
200 Continental Drive, Suite 400  
Newark Delaware 19713  
302-323-9377





STATE OF DELAWARE  
**DEPARTMENT OF NATURAL RESOURCES AND  
ENVIRONMENTAL CONTROL**

DIVISION OF FISH & WILDLIFE  
RICHARDSON & ROBBINS BUILDING  
89 KINGS HIGHWAY  
DOVER, DELAWARE 19901

**DIRECTOR'S  
OFFICE**

PHONE  
(302) 739-9910

April 25, 2025

Doug Seavey  
Landmark Science & Engineering  
200 Continental Drive, Suite 400  
Newark, DE 19713

*Re: LSE 2025 North Fish USA Inc Expansion Tax Parcel # 2101300103*

Dear Doug:

Thank you for contacting the Division of Fish and Wildlife (DFW) Species Conservation and Research Program about information on rare, threatened and endangered species, unique natural communities, and other significant natural resources as they relate to the above referenced project.

*State Natural Heritage Site*

A review of our database indicates that there are currently no records of state-rare or federally listed plants, animals or natural communities at this project site. As a result, at present, this project does not lie within a State Natural Heritage Site, nor does it lie within a Delaware National Estuarine Research Reserve which are two criteria used to identify "Designated Critical Resource Waters" in the U.S. Army Corps of Engineers (USACE) Nationwide Permit General Condition No. 22. A copy of this letter shall be included in any permit application or pre-construction notification submitted to the USACE for activities on this property.

*Fisheries*

After reviewing the project description, it does not appear that any waterways will be impacted; therefore, there are no fisheries concerns at present.

The DFW does not have fish community data for the project location. However, it is unlikely that habitat occurs in the project site that would support anadromous fish species. No time of year restrictions or other measures are requested for these species or for resident gamefish species.

We are continually updating our records on Delaware's rare, threatened and endangered species, unique natural communities and other significant natural resources. If the start of the project is

delayed more than a year past the date of this letter, please contact us again for the latest information.

Please feel free to contact me with any questions or if you require additional information.

Sincerely,

A handwritten signature in cursive script, appearing to read "Matthew Young".

Matthew Young  
*Environmental Review Coordinator*  
Phone: (302) 735-8677  
Email: [matthew.young@delaware.gov](mailto:matthew.young@delaware.gov)  
89 Kings Highway  
Dover, DE 19901

(See invoice on next page)

Attachment M - Conditional No Exposure Permit



**FORM 1**

DATE  
RECEIVED: 4/30/2025  
ID #: 550

## Notice of Intent (NOI) for Storm Water Discharges Associated With INDUSTRIAL ACTIVITY Under a NPDES General Permit (No Exposure)

## I. Applicant Information

Owner/Operator: North Fish USA Inc

Owner Last Name: Borisenko

Owner First Name: Nikita	MI:	Prefix:	Suffix:
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Mailing Address 1: 200 Centerpoint Boulevard

Mailing Address 2:

City: New Castle State: DE Zip: 19720

Telephone: 9542512021      Mobile:

Email Address: [sales@northfishusa.info](mailto:sales@northfishusa.info)

## II. Contact Information

Owner/Operator: North Fish USA Inc

Owner Last Name: Borisenko

Owner First Name: Nikita	MI:	Prefix:	Suffix:
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Mailing Address 1: 200 Centerpoint Boulevard

Mailing Address 2:

City: New Castle State: DE Zip: 19720

Telephone: 9542512021                      Mobile:

Email Address: [sales@northfishusa.info](mailto:sales@northfishusa.info)

Ref: 3883

Ref: 3883



## Notice of Intent (NOI) for Storm Water Discharges Associated With INDUSTRIAL ACTIVITY Under a NPDES General Permit (No Exposure)

### VIII. Exposure Checklist

Are any of the following materials or activities exposed to precipitation, now or in the foreseeable future? If you answer "Yes" to any of these questions, you are not eligible for the "No Exposure" exclusion.		Yes	No
1.	Using, storing, or cleaning industrial machinery or equipment, and areas where residuals from using, storing, or cleaning industrial machinery or equipment remain and are exposed to storm water.		X
2.	Materials or residuals on the ground or in storm water inlets from spills/leaks.		X
3.	Materials or products from past industrial activity.		X
4.	Material handling equipment (except adequately maintained vehicles).		X
5.	Materials or products during loading/unloading or transporting activities.		X
6.	Materials or products stored outdoors (except final products intended for outside use (e.g. new cars) where exposure to storm water does not result in the discharge of pollutants).		X
7.	Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers.		X
8.	Materials or products handled/stored on roads or railways owned or maintained by the discharger.		X
9.	Waste material (except waste in covered, non-leaking containers (e.g. dumpsters).		X
10.	Application or disposal of process wastewater (unless otherwise permitted).		X
11.	Particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e. under an air quality control permit) or evident in the storm water outflow.		X





## Notice of Intent (NOI) for Storm Water Discharges Associated With INDUSTRIAL ACTIVITY Under a NPDES General Permit (No Exposure)

### IX. Certification

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of "no exposure" and obtaining an exclusion from NPDES storm water permitting requirements.

I certify under penalty of law that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility or site in this document.

I understand that I am obligated to submit a "No Exposure" Certification Form once every five years to the Department and if requested, to the operator of the local municipal separate storm sewer system into which the facility discharges (where applicable). I understand that I must allow the NPDES permitting authority, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of "no exposure" and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any storm water discharges from the facility.

Additionally, I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: Nikita Borisenko

Signature: \_\_\_\_\_

Date: 04/30/2025

Attachment N - New Castle County Sewer System  
Acceptance

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**Re: NCC Discharge of water with 1.5% salt**

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**From** Douglas Seavey <dougs@landmark-se.com>  
**Date** Thu 5/1/2025 9:48 AM  
**To** DiSciullo Jr., Vincent <Vincent.DiSciullo@newcastlede.gov>

Vince, this should be perfect. Thank you again for your very fast response.  
Doug

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**From:** DiSciullo Jr., Vincent <Vincent.DiSciullo@newcastlede.gov>  
**Sent:** Thursday, May 1, 2025 9:15 AM  
**To:** Douglas Seavey <dougs@landmark-se.com>  
**Subject:** NCC Discharge of water with 1.5% salt

Doug, based on our conversation this morning regarding the brining of fish at North Fish facility in New Castle, we are granting permission to the request of discharging 4000 gallons/day of approximately 1.5 % salt water (dechlorinated water from public utility) to the sewer. If the volume of water or % of salt increases, please let us know for further evaluation.

If you need this stated on official County letterhead, let me know

Vince DiSciullo  
Acting Pretreatment Coordinator

#### Concentration of salt in wastewater

volume of salt is 420 lbs per day                      190.9091 kgs of salt per day  
600 liters of water used per vat

kgs of salt	190.9091	
liters of water	12000 per day (at 20 vats)	3168 gallons per day of water
	0.015909 kg/L	
	15909.09 ppm	1.590909 percent salt solution

Tons of salt used per year  
2500 lbs/week  
65 tons per year, based on 52 weeks of operation per year.

#### Organic (fish waste) concentration

Approximately 99% of the fish waste generated is disposed of in the trash.  
The remainder which goes into the drain is captured by the grease traps.