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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
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Secretary's Assessment Report of a Coastal Zone Act Standard Permit Application

North Fish USA, Inc.
200 Centerpoint Boulevard, New Castle, Delaware 19720
CZA-447P

Introduction

Under subsection 8.5.3 of 7 *DE Admin. Code* 101 *Regulations Governing Delaware's Coastal Zone* ("Regulations"), the Secretary of the Department of Natural Resources and Environmental Control (DNREC) shall provide a written assessment of any application for a Coastal Zone Act permit, including the proposed project's likely impact on the criteria listed in subsection 8.1, as well as a preliminary determination of the sufficiency of the offset project under section 9.0 of the Regulations. The completion of this assessment acknowledges the application submitted by North Fish USA, Inc. (North Fish) administratively complete. The fact that DNREC considers the application to be administratively complete does not constitute its position as to whether a permit should be issued or denied. That decision will be made after a public hearing is held and comments are reviewed.

Proposed Project Overview

North Fish is proposing to manufacture smoked fish inside an existing building at 200 Centerpoint Boulevard, New Castle, Delaware. North Fish would process between 6-10 metric tons of fish per day, resulting in a maximum of 9 metric tons of smoked fish product per day. The delivered frozen or refrigerated fish will be gutted and cleaned, either manually or using a Boletto gutting machine and a Steen descaler. Once cleaned, the fish will be stored in brine tanks until it reaches the specified salt concentration to meet health standards. The fish would then be stored on drying racks and allowed to dry gradually to prepare for smoking. The smoking process involves the use of either a Maurer Cage Smoker or a Fessman Four Cage Smoker and will then be packaged via an Ultravac 2100 to vacuum seal the fish. A Smoki 300 Smoke Zapper wet scrubber will be used to reduce air emissions during the smoking process.

Application Assessment

An application must consider the potential effect on the following criteria set forth in 7 *Del. C.* §7004(b) and subsection 8.1 of the Regulations:

1. Environmental impacts
2. Economic effects
3. Aesthetic effects
4. Number and type of supporting facilities and their anticipated impacts
5. Effect on neighboring land uses
6. Compatibility with city and municipal comprehensive plans

1. Environmental Impacts

Air Emissions

The proposed project would result in particulate matter emissions 2.5 microns in size ($PM_{2.5}$) and volatile organic compounds (VOCs) which are generated from the smoking process. According to the US EPA Compilation of Air Pollutant Emissions Factors from Stationary Sources (AP-42), other particulate matter emissions exist but do not have a measurable environmental impact. Generation of $PM_{2.5}$ and VOCs would fluctuate during the year, as North Fish experiences increases in production near holidays. Under normal conditions and with the use of a wet scrubber, $PM_{2.5}$ would not exceed 0.8215 pounds per day (0.128154 tons/year) and VOCs would not exceed 0.33 pounds per day (0.05148 tons/year). Maximum generation of $PM_{2.5}$ would not exceed 0.256308 tons per year, and total VOCs would not exceed 0.10296 tons per year after mitigation with the proposed wet scrubber.

Table 1 below shows the proposed maximum emissions that would be generated by the production of smoked fish with the use of a wet scrubber to mitigate emissions under typical and peak production scenarios.

Table1. Maximum Emissions with Wet Scrubber

Pollutant	Existing Emissions		Net Increase/ Decrease		New Total Emissions	
	Lbs/day	*Tons/year*	*Lbs/d.ay*	*Tons/year*	*Lbs/day*	*Tons/year*
Typical $PM_{2.5}$	0	0	0.8215	0.128154	0.8215	0.128154
Typical VOCs	0	0	0.33	0.05148	0.33	0.05148
Peak $PM_{2.5}$	0	0	1.643	0.256308	1.643	0.256308
Peak VOCs	0	0	0.66	0.10296	0.66	0.10296

Water Use and Discharge

The manufacturing process uses a maximum of 14,000 gallons of water per day, six days per week from the City of New Castle municipal water supply. Ten thousand (10,000) gallons are used to thaw and brine the fish before it is smoked, and 4000 gallons would be used in the cleaning and processing of the fish. Water used in the thawing and brining process would be contained in 300-gallon vats. Additional water from the municipal water supply would be used to clean the waste storage bins. All wastewater generated from the brining, thawing, and cleaning process would be filtered through three 200-gallon grease traps before entering the City of New Castle sewer system. The grease traps are pumped out and cleaned once per month for disposal via a private contractor. The City of New Castle has confirmed that the concentration of salt in the water and any residual organic material is acceptable discharge into the municipal sewer system.

Stormwater

The new activity would not generate an increase in stormwater runoff as the proposed project would occur within an existing building with no increase in impervious surfaces.

Land Erosion

The proposed project would operate within an existing building and would not impact land erosion.

Solid And Hazardous Waste

The manufacturing of the smoked fish will produce organic fish waste and routine solid wastes and requires no additional permits for the disposal of this waste material.

Wetlands or Habitat for Flora and Fauna

The proposed project would operate within an existing building and would not negatively impact wetlands or habitat for flora and fauna. The planting of native tree species is proposed as an offset to the manufacturing activities and has the potential to increase habitat for local wildlife.

Glare, Heat, Noise, Vibration, Radiation, Electromagnetic Interference, Obnoxious Odors

The proposed project is not anticipated to generate glare, noise, vibration, radiation, or electromagnetic interference.

The smoking procedure proposed by North Fish primarily uses a "cold smoking" process, where the fish would be smoked at 90 degrees. North Fish is also proposing the use of a "hot smoking" procedure for up to 10 percent of their smoking process. In this case, the fish would be smoked at 165 degrees. North Fish asserts that in both cases, smoking the fish at these

temperatures would not strain the HVAC system of the building where the proposed manufacturing would take place, and that temperatures are low enough that no measurable heat from the smoking process would escape the building.

To address potential odor concerns, all organic waste, including fish byproducts, will be bagged and disposed of in 2 cubic yard plastic dumpsters instead of standard metal waste bins. These waste containers are non-porous, corrosion-resistant, and washable from the inside. The bins will be washed inside the building every three days, and the wastewater and cleaning agents are drained into the City of New Castle sewer system. Organic waste will be stored solely in this container and in a specifically designated space immediately at the back of North Fish's building to prevent exposure to other tenants or nearby residents. All waste placed inside these isolated plastic containers will be picked up two times a day, including once at the end of the day 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. North Fish will increase the frequency of waste pickups and dumpster cleaning if odor issues arise.

Threatened or Endangered Species

Operations for the proposed project would occur entirely inside the existing building. DNREC Division of Fish and Wildlife did not identify any threatened or endangered species in the area around the existing building.

Potential To Pollute

The proposed operations would occur entirely within the existing building. The potential to pollute would occur if the wet scrubber were to be damaged or if the fish waste led to odor problems. The wet scrubber will be inspected daily as part of routine manufacturing operation, and an alarm sounds if the scrubber stops working. In the case of damage or mechanical failure of the wet scrubber, production of the smoked fish would be halted until the system is repaired. Table 2 illustrates the potential to pollute for $PM_{2.5}$ and VOCs that could be generated if the wet scrubber were to fail and theoretical operations continued.

Table 2. Maximum Emissions without Wet Scrubber

Pollutant	Existing Emissions		Net Increase/ Decrease		New Total Emissions	
	Lbs/day	*Tons/year*	*Lbs/day*	*Tons/year*	*Lbs/day*	*Tons/year*
Typical $PM_{2.5}$	0	0	2.65	0.4134	2.65	0.4134
Typical VOCs	0	0	2.2	0.3432	2.2	0.3432
Peak $PM_{2.5}$	0	0	5.3	0.8268	5.3	0.8268
Peak VOCs	0	0	4.4	0.6864	4.4	0.6864

Odor issues could arise if the dumpsters that contain the fish waste become damaged, if waste is disposed of improperly, or if the fish waste is not picked up for disposal in a timely manner. North Fish has provided an odor control plan to mitigate potential impacts of the fish waste which includes dumpster maintenance, employee training, and a disposal schedule. Should any complaints arise from the fish odors, North Fish will increase the frequency of waste pickups and dumpster cleaning.

2. Economic Effects

North Fish plans to hire twenty-five (25) full time employees to operate its facility at 200 Centerpoint Boulevard. No part time staff is expected, and the only temporary staff would be contractors during initial equipment installation. Anticipated salary ranges of employees can be seen in Table 3. During building renovations, the company will retain one foreman and four construction workers daily, each working 8 hours per day, for a total of 40 hours per week for approximately three weeks.

Table 3. Anticipated Salaries for Full Time Staff

Salary (Annual)	Percentage of Employees
$35,000-49,999	40
$50,000-64,999	28
$65,000-79,999	20
$80,000-100,000	8
$>100,000	4

North Fish anticipates paying $85,782 in state corporate tax and $207,060 in federal corporate tax annually. Local and school taxes are paid by the landlord as part of the lease.

3. Aesthetic Effects

The manufacturing operation will occur within an existing building and would not impact the aesthetics of the area.

4. Number and Type of Supporting Facilities Impacts

All supporting infrastructure will be provided by North Fish within the existing footprint of the existing building.

5. Effect on Neighboring Land Uses

North Fish would conduct the proposed manufacturing on an existing industrial site zoned by the City of New Castle as "regular industrial" and will be compatible with neighboring land

uses. The nearest residential area is located approximately 1,000 feet to the east of 200 Centerpoint Boulevard, the proposed project location. Possible odor impacts and air emissions would be mitigated through use of the proposed wet scrubber and the odor control plan. Air emission offsets would include the planting of native tree species to physically trap $PM_{2.5}$, and to reduce VOCs and CO_2.

6. Compatibility with City and Municipal Comprehensive Plans

The City of New Castle confirmed that the proposed project is consistent with city and municipal planning.

Offset Proposal

After mitigation, total maximum generation of $PM_{2.5}$ would not exceed 0. 256308 tons per year, and total VOCs would not exceed 0.10296 tons per year. Therefore, North Fish needs to more than offset the total 0.359268 tons per year of emissions. North Fish is proposing to plant twenty (20) trees in the business park where the building is located. These trees will be a mix of 4 to 5-year-old (approximately 5-6 feet tall) native black cherry (*Prunus serotina*), loblolly pine (*Pinus taeda*), and scarlet oak (*Quercus coccinea*).

Pursuant to section 9.1.5 of the Regulations, the applicant may propose an offset that does not directly offset the pollutants that an applicant would be emitting if it is not practicable to eliminate or obtain a credit for the release of the same pollutant. North Fish asserts that it is not possible to eliminate all pollutants that would be generated by the proposed fish smoking process. While the amount of $PM_{2.5}$ and VOCs that trees mitigate is difficult to quantify, North Fish has provided documentation which illustrates the absorption of VOCs, such as methane, by trees through their leaf stomata. Other studies provided by North Fish shows that trees physically trap airborne $PM_{2.5}$ on their leaves, twigs, and bark. Planting these trees will also remove carbon dioxide (CO_2) from the atmosphere. North Fish claims that the removal of CO_2 is an appropriate indirect offset because the removal of CO_2 would provide benefits to human health and the environment that are comparable to the removal of $PM_{2.5}$ and VOCs.

Studies quoted in the North Fish application state that the removal of VOCs, $PM_{2.5,}$ and CO_2 help to mitigate impacts to climate change as these pollutants absorb solar radiation and can contribute to an increased warming effect on the atmosphere. Additional information provided by North Fish states that the removal of VOCs, $PM_{2.5}$, and CO_2 from the atmosphere can have positive impacts on human health. According to supporting documentation provided by North Fish, VOCs and $PM_{2.5}$ are both primary components of smog and haze, and the removal of CO_2 can hinder the formation of smog and haze thereby reducing the health effects from those pollutants. North Fish's application states that trees being planted would remove up to 0.48 tons per year of CO_2 more than offsetting the total 0.359268 tons/year of manufacturing emissions at a ratio of 1.33:1.

North Fish will coordinate with McConnell Development, the company responsible for groundskeeping, to maintain the trees and replace them should the need arise. In addition, Landmark Science and Engineering, the company that prepared the application on behalf of North

Fish, has stated that the removal of CO_2 via tree planting would more than offset the air pollutants generated from the manufacturing of the smoked fish. Table 4 below illustrates the offset proposed by North Fish and shows the ratio of proposed generated emissions to proposed absorbed CO_2.

Table 4. Proposed Offset

$PM_{2.5}$ Emissions (tons/year)	VOC Emissions (tons/year)	Total Emissions (tons/year)	CO_2 Offset (tons/year)	Offset Ratio
0.256308	0.10296	0.359268	0.48	1.33:1

Sufficiency Statement and Conclusion

The application by North Fish addresses the questions of the permit application, and the criteria required to be reviewed under 7 *Del. C.* §7004 and subsection 8.1 of the Regulations.

After reviewing the application materials and coordinating with subject matter experts within DNREC, the Department considers the application administratively complete and sufficient to proceed to public hearing.

Approved: _____ Date: July 27, 2025

Gregory Patterson
Secretary, DNREC