

## CHAPTER 115 AIR EMISSION LICENSE APPLICATION FORM

State of Maine
Department of Environmental Protection
Bureau of Air Quality
17 State House Station
Augusta, Maine 04333-0017
Phone: (207) 287-7688 Fax: (207) 287-7641

### **Section A: FACILITY INFORMATION**

Nordic Aquafarms, Inc.

Application #:

App Track #:

Owner or Operator (*Legal name as registered with the Secretary of State*):

|     | Facility Site Name: Nordic Aquafarms                   |  |
|-----|--|--|
|     | Facility Site Address (Physical, no post office boxes) | : 285 Northport Ave  |
|     | City/Town: Belfast Zip Code: 04                        | 4915 County: Waldo   |
|     | • • •  | oposing to construct a salmon farm in Belfast, Me.         |
| -   | Application Description: A New Minor Source Ap         | plication for the construction and operation of Eight 2-MW |
|     | electrical generating diesel engines.                  |  |
|     |  |  |
| Cur | rent License #: TBD                                    |  |
| Che | eck When Done:   |  |
|     | All Sources  | Additional Requirements for New Sources                    |
| X   | Application Completed                                  | Schedule for construction or installation of equipment     |
| X   | Copy Sent to Town (date sent: on or about              | Title, Right, or Interest (e.g. copy of deed or lease)     |
|     | 5/7/19)  |  |
| X   | Public Notice Published                                | Check for Fee  |
|     | paper name & date: Bangor Daily 4/25/19                |  |
| X   | Enclosed Public Notice Tear Sheet                      | Additional Requirements for New Major Sources              |
| X   | Signed Signatory Form (Section K)                      | and Major Modifications                                    |
|     |  | Notify Abutting Landowners                                 |
|     |  |  |
|     | For Dep  | artment Use  |

| Facility Contact:    |   |        |              |              |       |
|----------------------|---|--------|--------------|--------------|-------|
| Company:             | Nordic Aquafarms, Inc. 511 Congress St. |        |              |              |       |
| Phone: (207) 323-    | Portland 4911 anordicaquafarms.com      | Fax:   |              |              |       |
| Application Contact: |   |        |              |              |       |
| Name: Steven Wh      | nipple                                  |        | Title: Cons  | ultant       |       |
| Company: Mainel      | ly Environmental LLC                    |        |              |              |       |
| Mailing Address:     | 60 Pineland Dr., Suite 31               | 0      |              |              |       |
|                      |   |        |              |              |       |
| City/Town:           | New Gloucester                          |        | State: ME    | _Zip Code:   | 04260 |
| Phone: (207) 671-    | 3787                                    | _      | Fax:         |              |       |
|                      | mainelyenvironmental.co                 |        |              |              |       |
| Billing Contact:     |   |        |              |              |       |
| Name: Brenda Ch      | andler                                  | Title: | Chief Financ | cial Officer |       |
| Company:             | Nordic Aquafarms, Inc.                  |        |              |              |       |
| Mailing Address:     | 511 Congress St.                        |        |              |              |       |
|                      |   |        |              |              |       |
| City/Town:           | Portland                                |        | State: ME    | _ Zip Code:  | 04101 |
| Phone: (207) 415-    | 7237                                    | _      | Fax:         |              |       |
| e-mail: blc@nordi    | caquafarms.com                          |        |              |              |       |

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## Section B1: STATIONARY FUEL BURNING EQUIPMENT (NA)

(List equipment such as boilers, hot water heaters, etc.)

| Emission Unit | Type of Equipment (boiler, water | Maximum<br>Design | Maximum     |           |          | Date of     | Date of      |         |
|---------------|----------------------------------|-------------------|-------------|-----------|----------|-------------|--------------|---------|
| ID            | heater, etc.)                    | Capacity          | Firing Rate | Fuel Type | % Sulfur | Manufacture | Installation | Stack # |
|               |                                  |                   |             |           |          |             |              |         |
|               |                                  |                   |             |           |          |             |              |         |

## **Section B2: INTERNAL COMBUSTION ENGINES**

(List equipment such as generators, diesel drive units, fire pumps, etc. Do not list wheeled mobile equipment such as loaders, backhoes, trucks, etc.)

|                     |  |   |                                    |                        |              |          |                 |                      |          |            |          |          | gnitio<br>s Onl |           |
|---------------------|--|---|------------------------------------|------------------------|--------------|----------|-----------------|----------------------|----------|------------|----------|----------|-----------------|-----------|
| Emission Unit<br>ID | Serial Number                                      | Maximum Design Heat Input Capacity (MMBtu/hr) | Maximum Output Capacity (kW or Hp) | Maximum<br>Firing Rate | Fuel<br>Type | % Sulfur | Date of<br>Manf | Date of Installation | Portable | Stationary | 2-Stroke | 4-Stroke | Rich Burn       | Lean Burn |
| #1-#8               | Caterpillar<br>3516C Tier 4F<br>(OR<br>EQUIVALENT) | 19.53   | 2000                               | 139.5 gal/hr           | diesel       | 15 ppm   | 2019            | 2019                 |          | X          |          |          |                 |           |

| Does your facility p | participate in a Demand Response program in which the generator(s) may be operated for more than 1 | 5 hours per c | alendar year' |
|----------------------|--|---------------|---------------|
| yes X no             |  |               |               |
|                      |  |               |               |
| If yes, what units?  |  |               |               |

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## Control Equipment for Fuel Burning Equipment

If applicable, indicate the types of required/operated add-on pollution control equipment, including baghouses, cyclones/multiclones, SCR, SNCR, etc.

| Emission Unit | Type of Control                        | Pollutant Controlled | Control Efficiency     |
|---------------|--|----------------------|------------------------|
| Engines #1-8  | SCR, Cat Oxidizer & Particulate Filter | NOx, CO, VOC, and PM | NSPS IIII - EPA Tier 4 |
|               |  |                      |                        |
|               |  |                      |                        |
|               |  |                      |                        |

### Monitors for Fuel Burning Equipment:

If applicable, indicate types of required/operated monitors, including Continuous Emission Monitors (CEM), Continuous Opacity Monitors (COM), parameter monitors for operational purposes, etc.

| Emission Unit | Type of Monitor | Data Measured |
|---------------|-----------------|---------------|
|               |                 |               |
|               |                 |               |
|               |                 |               |
|               |                 |               |
|               |                 |               |

#### **Section C: INCINERATORS** (NA)

|   | Incinerato | r Unit 1 | Incinerat | or Unit 2 |
|---|------------|----------|-----------|-----------|
| Incinerator Type  |            |          |           |           |
| (medical waste, municipal, etc.)                            |            |          |           |           |
| Waste Type  |            |          |           |           |
| Make (Shenandoah, Crawford, etc.)                           |            |          |           |           |
| Model Number  |            |          |           |           |
| Date of Manufacture   |            |          |           |           |
| Date of Installation  |            |          |           |           |
| Number of Chambers  |            |          |           |           |
| Max. Initial Charge   |            | lb       |           | lb        |
| Max. Design Combustion Rate                                 |            | lb/hr    |           | lb/hr     |
| Heat Recovery? (Yes or No)                                  |            |          |           |           |
| Retention Time of Exhaust Gases                             |            | seconds  |           | seconds   |
| Automatic Feeder? (Yes or No)                               |            |          |           |           |
| Temperature Range   |            |          |           |           |
| Primary   | to         | °F       | to        | °F        |
| Secondary   | to         | °F       | to        | °F        |
| Auxiliary Burner - Primary Chamber max. rating (MMBtu/hr)   |            |          |           |           |
| type of fuel used   |            |          |           |           |
| Auxiliary Burner - Secondary Chamber max. rating (MMBtu/hr) |            |          |           |           |
| type of fuel used   |            |          |           |           |
| Annual Waste Combusted for(yr)                              |            |          |           |           |
| Pollution Control Equipment (if any)                        |            |          |           |           |
| Stack Number  |            |          |           |           |
| Monitors (ie - temperature recorder)                        |            |          |           |           |

## Section D: PROCESS EQUIPMENT (NA)

| Emission<br>Unit ID | Type of Equipment | Maximum Raw<br>Material Process<br>Rate<br>(name and rate) | Maximum Finished Material Process Rate (name and rate) | Date of<br>Manufacture | Date of<br>Installation | Stack # | Control Device |
|---------------------|-------------------|--|--|------------------------|-------------------------|---------|----------------|
| Omt ID              | Equipment         | (marite and rate)  | (name and rate)  | ivianulacture          | instantation            | Diack # | Control Device |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |
|                     |                   |  |  |                        |                         |         |                |

## Solvent Cleaners

(Also known as Parts Washers and/or Solvent Degreasers) (NA)

| Emission<br>Unit ID | Capacity (gallons) | Solvent Used | Solvent % VOC |
|---------------------|--------------------|--------------|---------------|
| Degreaser #1        | 15                 | Kerosene     | 100%          |
| (Example)           | (Example)          | (Example)    | (Example)     |
|                     |                    |              |               |
|                     |                    |              |               |
|                     |                    |              |               |
|                     |                    |              |               |
|                     |                    |              |               |
|                     |                    |              |               |

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## PROCESS EQUIPMENT (section D cont'd)

Chemical Usage (NA)

Note: Complete this section for any chemicals integral to your process, for example, a cementing process for outersoles, dyes, surface coating, printing, cleaning, etc. Attach additional pages or MSDS sheets as needed.

| Process | Chemical substance used in process | Actual Usage (gal or lb for yr) | Hazardous<br>chemical(s) in<br>substance | Percent VOC¹ (%) | Percent<br>HAP <sup>2</sup><br>(%) | Total<br>VOC<br>emitted<br>(lb/year) | Total<br>HAP<br>emitted<br>(lb/year) |
|---------|------------------------------------|---------------------------------|--|------------------|------------------------------------|--------------------------------------|--------------------------------------|
|         |                                    |                                 |  |                  |                                    |                                      |                                      |
|         |                                    |                                 |  |                  |                                    |                                      |                                      |
|         |                                    |                                 |  |                  |                                    |                                      |                                      |
|         |                                    |                                 |  |                  |                                    |                                      |                                      |
|         |                                    |                                 |  |                  |                                    |                                      |                                      |
|         |                                    |                                 |  |                  |                                    |                                      |                                      |

Volatile Organic Compounds
 Hazardous Air Pollutants

| anks, e | te method of record keeping (ie. monthly calculations from purchase records, flow monitors on solvent tc.)   |
|---------|--|
|         |  |
|         |  |
|         |  |
|         | re methods used to calculate VOC/HAP emitted (ie – test results, if control equipment was taken into exist where solvents remain in the substrate rather than complete volatilization, etc.) |
|         |  |
|         |  |

## **Section E: STACK DATA**

|                 | Height       | Inside   |                | Exhaust Flow Rate             |
|-----------------|--------------|----------|----------------|-------------------------------|
|                 | Above Ground | Diameter | Exit           | $(ft^3/s)$                    |
| Stack #         | (ft)         | (ft)     | Temperature °F | [indicate actual or standard] |
| Generators #1-8 | 45           | TBD      | 490            | 15,000 (ACFM)                 |
|                 |              |          |                |                               |
|                 |              |          |                |                               |

### **Section F: ANNUAL FACILITY FUEL USE**

| Total Fuel Consumption by Month for  | :: (year)   |   |
|--|---|---|
| Fuel type: <u>Diesel</u>   | Fuel type:  | Fuel type:  |
| Avg % sulfur (oil) _15 ppm_<br>Avg % moisture (wood)<br>(circle one: gal, tons, scf) | Avg % sulfur (oil)<br>Avg % moisture (wood)<br>(circle one: gal, tons, scf) | Avg % sulfur (oil)<br>Avg % moisture (wood)<br>(circle one: gal, tons, scf) |
| January<br>February  |   |   |
| March<br>April   |   |   |
| May<br>June  |   |   |
| July   |   |   |
| September  |   |   |
| November   |   |   |
| December   |   |   |
| Total  |   |   |
| Proposed Annual Limits <u>900,000 gal</u>  |   |   |

## Section G: LIQUID ORGANIC MATERIAL STORAGE

|  |             | <br> | <br> |  |
|--|-------------|------|------|--|
| Tank #   | TBD*        |      |      |  |
| Capacity (gallons)                                     |             |      |      |  |
| Materials Stored                                       |             |      |      |  |
| Reid Vapor Pressure (RVP)                              |             |      |      |  |
| Annual Throughput                                      |             |      |      |  |
| Above or Below Ground?                                 |             |      |      |  |
| Tank Type (floating or fixed, riveted or bolted, etc.) |             |      |      |  |
| Physical Description – year installed                  |             |      |      |  |
| Physical Description – color                           |             |      |      |  |
| Dimensions - height (ft)                               |             |      |      |  |
| Dimensions - Diameter (ft)                             |             |      |      |  |
| Construction Material                                  |             |      |      |  |
| Control Device   |             |      |      |  |
| *Likely a 25 000 gallon diese                          | l fuel tank |      |      |  |

### **Section H: MISCELLANEOUS**

| Note: | Use this section to describe any equipment, activities, or other air emission sources that did not fit in any |   |                            |  |  |
|-------|---|---|----------------------------|--|--|
|       | of the above categories.  | Include descriptions of the associated emissions. | Attach additional pages if |  |  |
|       | necessary.  |   |                            |  |  |
|       |   |   |                            |  |  |
|       |   |   |                            |  |  |
|       |   |   |                            |  |  |
|       |   |   |                            |  |  |
|       |   |   |                            |  |  |
|       |   |   |                            |  |  |
| -     |   |   |                            |  |  |
|       |   |   |                            |  |  |

Likely a 25,000 gallon diesel fuel tank.

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#### **Section I: BPT/BACT AND OTHER ATTACHMENTS**

#### BPT/BACT Analysis:

For a license renewal for existing equipment, the applicant is required to submit a Best Practical Treatment (BPT) analysis to the Department. A BPT analysis establishes what equipment or requirements are appropriate for control or reduction of emissions of regulated pollutants to the lowest possible level considering the existing state of technology, the effectiveness of available alternatives, and the economic feasibility.

For a new license or the addition of new equipment to an existing license, the applicant is required to submit a Best Available Control Technology (BACT) analysis. A BACT analysis is a top-down approach to selecting air emission controls. It is done on a case-by-case basis and develops emission limits based on the maximum degree of reduction for each pollutant emitted taking into account economic, environmental and energy impacts.

I certify that, to the best of my knowledge, the control equipment, fuel limitations, and process constraints outlined in this application represent BPT / BACT for the equipment and processes listed.

OR

**X** I have attached a separate BPT / BACT analysis to this application.

#### Other Attachments:

Please list any other attachments included with this application.

#### Application Report Attached (with BACT) &

Appendix A: Maine DEP Chapter 140 Forms

Appendix B: Public Notice
Appendix C: Site Plan

Appendix D: <u>Title, Right, & Interest</u>

## **Section J: APPLICABLE RULES**

Please indicate any rules you believe may be applicable to your facility by checking the associated box.

|   | Citation       | Title   |  |  |
|---|----------------|---|--|--|
| X | 06-096 CMR 101 | Visible Emissions   |  |  |
| X | 06-096 CMR 103 | Fuel Burning Equipment Particulate Emission Standard  |  |  |
|   | 06-096 CMR 104 | Incinerator Particulate Emission Standard   |  |  |
|   | 06-096 CMR 105 | General Process Source particulate Emission Standard  |  |  |
| X | 06-096 CMR 106 | Low Sulfur Fuel Regulation  |  |  |
|   | 06-096 CMR 111 | Petroleum Liquid Storage Vapor Control  |  |  |
|   | 06-096 CMR 112 | Bulk Terminal Petroleum Liquid Transfer Requirements  |  |  |
|   | 06-096 CMR 117 | Source Surveillance   |  |  |
|   | 6-096 CMR 118  | Gasoline Dispensing Facilities Vapor Control  |  |  |
|   | 06-096 CMR 121 | Emission Limitations and Emission Testing of Resource Recovery Facilities                   |  |  |
|   | 06-096 CMR 123 | Paper Coating Regulation  |  |  |
|   | 06-096 CMR 124 | Total Reduced Sulfur Control from Kraft Mills   |  |  |
|   | 06-096 CMR 125 | Perchloroethylene Dry Cleaner Regulation  |  |  |
|   | 06-096 CMR 126 | Capture Efficiency Test Proceedures   |  |  |
|   | 06-096 CMR 129 | Surface Coating Facilities  |  |  |
|   | 06-096 CMR 130 | Solvent Degreasers  |  |  |
|   | 06-096 CMR 131 | Cutback Asphalt and Emulsified Asphalt  |  |  |
|   | 06-096 CMR 132 | Graphic Arts – Rotogravure and Flexography  |  |  |
|   | 06-096 CMR 133 | Petroleum Liquids Transfer Vapor Recovery at Bulk Gasoline Plants                           |  |  |
|   | 06-096 CMR 134 | Reasonably Available Control Technology for Facilities That Emit Volatile Organic Compounds |  |  |
|   | 06-096 CMR 137 | Emission Statements   |  |  |
|   | 06-096 CMR 138 | Reasonably Available Control Technology for Facilities That Emit Nitrogen Oxides            |  |  |
|   | 06-096 CMR 140 | Part 70 Air Emission License Regulations  |  |  |
|   | 06-096 CMR 145 | NOx Control Program   |  |  |
|   | 06-096 CMR 153 | Mobile Equipment Repair and Refinishing   |  |  |
|   | 06-096 CMR 159 | Control of Volatile Organic Compounds from Adhesives and Sealants                           |  |  |
|   | 06-096 CMR 161 | Graphic Arts – Offset Lithography and Letterpress Printing                                  |  |  |
| X | 40 CFR Part 60 | New Source Performance Standards (NSPS)   |  |  |
|   |                | (please list Subpart(s): Subpart IIII)  |  |  |
|   | 40 CFR Part 63 |   |  |  |
|   | Other (list)   |   |  |  |
|   | Other (list)   |   |  |  |

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### **Section K:SIGNATORY REQUIREMENT**

Each application submitted to the Department must include the following certification signed by a <u>Responsible</u> Official\*:

| <del></del>  |                 |
|--|-----------------|
| "I certify under penalty of law that, based on information and be<br>the information included in the attached document is true, complete | 1 3 /           |
| Responsible Official Signature   | Date            |
| Erik Heim Responsible Official (Printed or Typed)  | President Title |

- \* A Responsible Official is defined by MEDEP Rule, Chapter 100 as:
  - **A.** For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
    - (1) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
    - (2) The delegation of authority to such representatives is approved in advance by the permitting authority;
  - **B.** For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
  - **C.** For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).