

5. ALTERNATIVES

The former Tors Cove Fisheries fish plant was not the first location Ár n-oileán looked at. A long multi-year exhaustive search was conducted searching for a location that met the specific needs of the company and within the determined acquisition budget.

Requirements:

- Within budgeted acquisition allowance
- Minimum of 35,000sqft
- 600v 3 phase power
- 12' ceilings with 20' ceilings in at least one production section
- Cold storage & blast freezers
- Local Workforce

5.1. Trinity Bay North – OCI Fish Plant

The first location the company investigated to begin its operations was Trinity Bay North (TBN) in the former Ocean Choice International (OCI) fish plant.

Figure 67 - Trinity Bay North - OCI Fish Plant



When the TBN town council heard of Ár n-oileáns' research and development in the seal industry, the then Deputy Mayor of Trinity Bay North contacted company representatives asking if Ár n-oileán would consider purchasing the closed plant from OCI and begin their full-time operations in their town.

Ár n-oileán did meet with the town council multiple times and worked towards completing an agreement for the building but before a deal could be finalized another party purchased the building to use as a cannabis production facility.

5.2. Trinity Bay North – Hardware Store

Once the deal for the OCI plant fell through the company began searching the region for a suitable replacement. One such option was a former hardware store located a half a kilometer away from the fish plant. This hardware store, though ready to occupy, was far too small for the company needs and had a layout not conducive for production equipment and workflow.

Figure 68 - Trinity Bay North - Hardware Store



5.3. Bonavista

Mayor of Bonavista John Norman personally showed company representatives multiple properties in Bonavista hoping one would be suitable for Ár n-oileán to bring its operations and jobs to his town including a small warehouse, a former school and a small cold storage facility.

Unfortunately, neither of these places met any of the requirements necessary for operating an Omega-3 oil production facility.

Figure 69 - Bonavista - Cold Storage



5.4. Charleston

Ár n-oileán did find a location that seemed to meet the majority of its requirements, the former fish plant in Charleston on the Bonavista Peninsula; a Local Service District like Tors Cove.

Figure 70 - Charleston Fish Plant



This plant had ample square footage, a large cold storage room and tall ceilings in what would be production rooms.

Unfortunately, once representatives walked through the building which had been vacant for approximately ten years, the extreme dilapidation became very evident. Just like the Tors Cove fish plant, a pipe had burst and water freely flowed into the building flooding the furnace room with two feet of water.

Figure 71 - Charleston Plant Flooding



Also, like Tors Cove, there were many places where the roof heavily sagged and each room showed its disrepair. The damage that finally ruled this building out as a viable option however was the West section.

Where the Tors Cove plant had two interior walls collapse there was only one exterior wall that was separating from the structure and bowing out. The Charleston building had multiple exterior walls crumble completely with a full collapse of the roof, opening up the interior of the building to the outdoors.

Figure 72 - Charleston - Roof Collapse 1



Debris from the deteriorating building floated from the structure into the ocean at a constant flow.

Figure 73 - Charleston - Roof Collapse 2



Local residents told company representatives afterwards that due to the extent of damage in the building and the cost to tear down and remove the debris, the property cannot be sold nor the building removed, and remains an eye sore in the community and is both a physical and environmental hazard that no one wants to pay for.

5.5. Bay Roberts

The company viewed a former fish plant in Bay Roberts. Its location was promising with a work force in the area that was familiar with working with seals. However, upon viewing, the plant revealed itself to be a conglomerate of add-ons, with different ceiling heights and seemingly random shaped rooms, all of which were in disrepair.

The maze-like layout and necessary renovations meant for the property to be usable the plant would have to be torn down to the foundation and a new building built in its place which would have been both cost and time prohibitive.

Figure 74 - Bay Roberts - Fish Plant



5.6. Long Harbour

A warehouse in Long Harbour caught the eye of the company, which offered two attached structures, an office building and a 24' high warehouse with multiple 16' tall overhead doors.

Though it did have several attractive features including price, it was far too small to house all of the company's operations and ultimately was purchased by another party to grow cannabis with the purchase pending even as company representatives did their walk through.

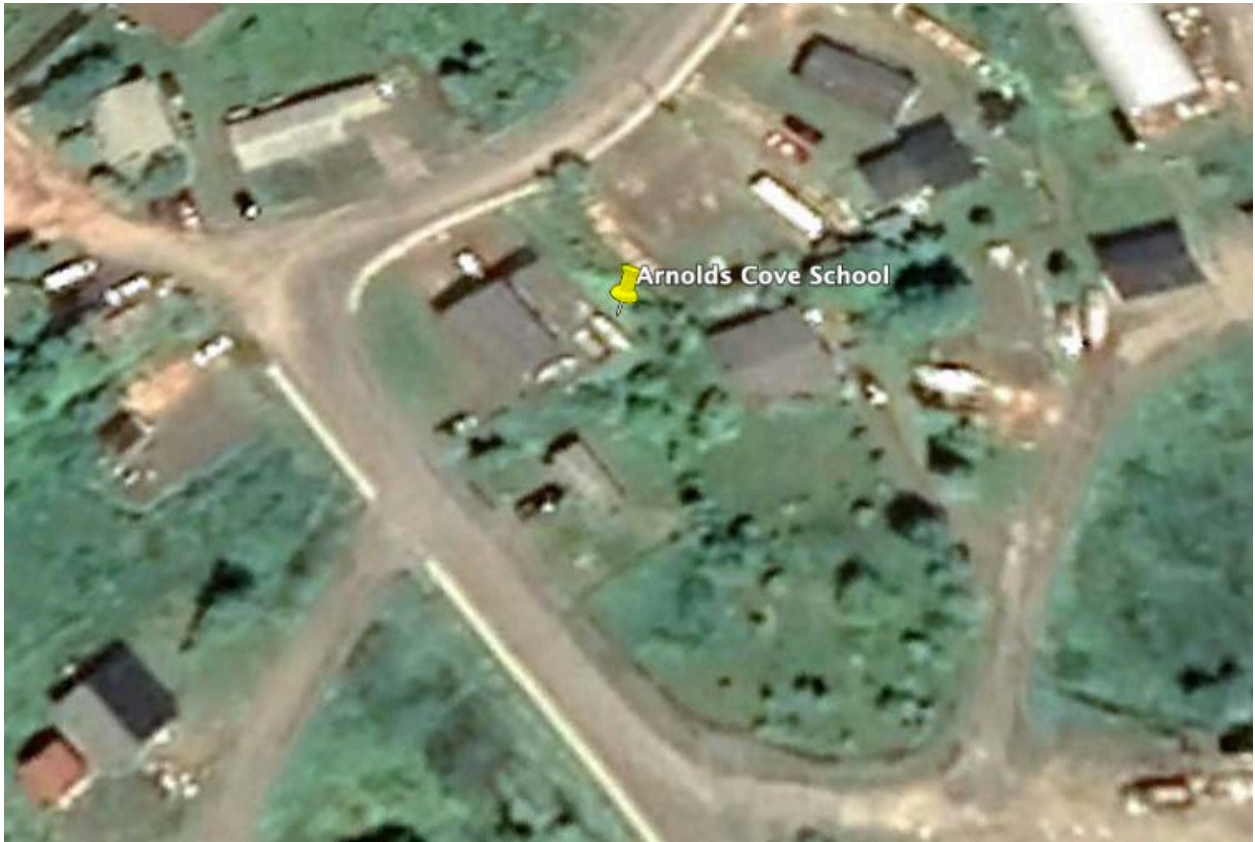
Figure 75 - Long Harbour Warehouse



5.7. Arnold's Cove

One of the several real-estate agents the company worked with showed representatives a former school gymnasium in Arnolds Cove. As this building failed to meet any of the necessary requirements, executives never went as far as to engage with the local town council.

Figure 76 - Arnold's Cove - School



5.8. Shoal Harbour

With very limited suitable buildings to view, the company explored its options in Shoal Harbour; namely to purchase and occupy a small office / retail space available to purchase. This building was said to be situated upon 2.5 acres of property with which the omega-3 oil production facility could be built behind and attached to the aforementioned office structure.

Figure 77 - Shoal Harbour Property



These plans were discussed with the local town council who then in turn posted the company's intentions in the paper for multiple weeks seeking public opinion. The council informed representatives they received no public opposition to the venture and provided tentative approval to continue research into the feasibility of the location.

In the end both building a facility from the ground up and installing prefab structures were determined to be far too expensive and not economically viable for development. In addition, the time necessary to allocate to such a project from government approvals, to clearing land to construction and inspections would have created unmanageable delays.

5.9. Tors Cove

In all, Ár n-oileán Resources worked with six different real-estate agents, three town mayors, an MHA and multiple people with local knowledge. With the exception of the former Tors Cove Fisheries building, each of the properties investigated after the OCI building in TBN fell through either lacked mandatory requirements, with square footage being the number one item, or required such upgrades that made the selection cost prohibitive.

Other buildings brought to the companies' attention that may have met all requirements were too far out of the purchasing budget to warrant further review such as the former Terra Nova Boots factory in Harbour Grace selling for \$3 million.

The Tors Cove plant was purchased by the company for a fraction of that price. Even with the rapid degradation of the building and the garbage filled property, with 43,000 square feet of space, twelve foot to twenty foot ceilings, large cold storage space, multiple blast freezers and a 600v, 2000amp power supply this location met the necessary requirements and was approved for purchase.

Figure 78 - Tors Cove Facility - Aerial Photo



After purchasing, the final requirement box, local workforce, was happily checked off when dozens of members of the community provided company personnel with their intention to seek employment at the facility.

6. POTENTIAL ENVIRONMENTAL EFFECTS & MITIGATION

6.1. Positive Environmental Impacts

The single biggest environmental impact of this location would be allowing the former Tors Cove Fisheries fish plant to follow the Charleston fish plant legacy, collapsing into the sea. Simply by repairing and operating in the facility the company will prevent brick and mortar, roofing felt, painted materials and pressure treated lumber from feeding into the sea as time and years absent of maintenance break down the structural integrity of the buildings.

The administration building and bunk trailer sitting condemned in the center of the yard will be completely removed before wayward pieces can detach and blow free of the premises.

There are several holes in the back of the building visible from the East Coast Trail, roughly 8' x 4', where previous owners roughly cut out the metal siding instead of adding ventilation ducts. This siding will be repaired, improving both the integrity of the structure as well as the aesthetics.

The company has already removed approximately 30 tonnes of garbage, refuse and debris from the yard surrounding the buildings that was visible from the East Coast Trail system, the road leading to the beach and the beach itself. An additional estimated 20 tonnes still remain to be eradicated.

For years now a burst 6-inch water intake pipe has been flowing water from Tors Cove Pond into the building at a rate of 4.75L / sec which is almost 40 million gallons per year.

Ár n-oileán reduces that to less than 1 million gallons per year plus fire hydrant requirements. These requirements and how to efficiently manage hydrant supply will be determined by plumbing contractors and consultation with the local fire department once plumbing upgrades are permitted to begin.

6.2. Tourism & Recreational Use

During both the zoom open meeting with residents and the in-person Tors Cove Community Hall resident information meeting, Ár n-oileán representatives heard concerns of processing operations interfering with local tourism or recreational use including beach use and kayak launching.

The adult seal harvesting season begins in January and the beater seal season runs from March-May, therefore the vast majority of company operations happen during the winter and spring. Approximately 70% of operations will commence during the months of January and February and an additional 25% throughout the months of March to May, therefore there will be very little overlap with the tourism and prominent recreational season typically running from June through September.

At least one resident suggested the presence of a business that deals with sealing operations any time of the year could have adverse effects on tourism. The fact is the largest seal tannery in the world, Carino Processing Ltd, operates out of South Dildo, a community that has seen a significant growth in tourism each season for years now.

The old, dilapidated wharf extending from the beach beyond the Ár n-oileán fence line is not a part of the company property. Furthermore, the company has no intentions of receiving vessels or landing raw material at this wharf at any time of year. The depth of the harbour is insufficient to dock 65' vessels and it would cost more than a million dollars to restore the wharf for commercial usage.

The wharf and the beach will remain utilized for recreational usage only.

Company representatives met with the East Coast Trail Association Trail Operations Manager, Ed Delaney at the Tors Cove property to discuss potential impact on the ECT trail running behind the property.

Mr. Delaney felt there would be very little comparative usage of the trail during the company's' prime operating season, and what overlap there was would have little to no impact on the trail.

All of the company's parking, both of trucks and employee vehicles, will be situated within the fenced property or upon secured off street parking. The East Coast Trail Association suggests to its users they avail of a parking lot adjacent to the actual trail access point at the site of a former church which is on a road North of the plant and not shared with Ár n-oileán trucking routes.

Figure 79 - Employee Parking Designations

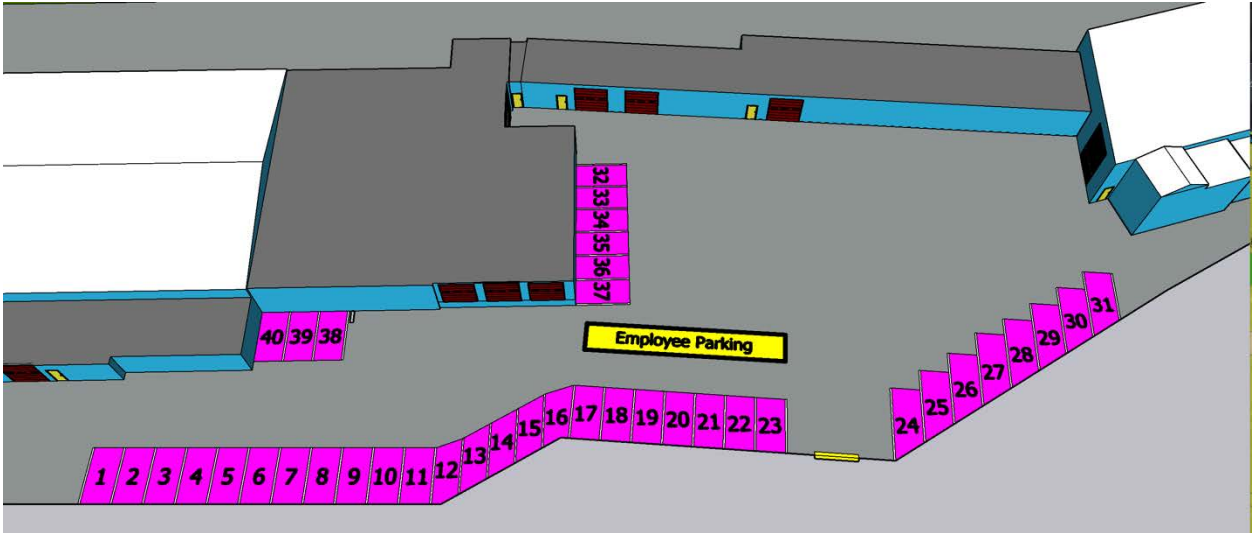


Figure 80 - Transport Trucks & Reefer Container Parking Designations

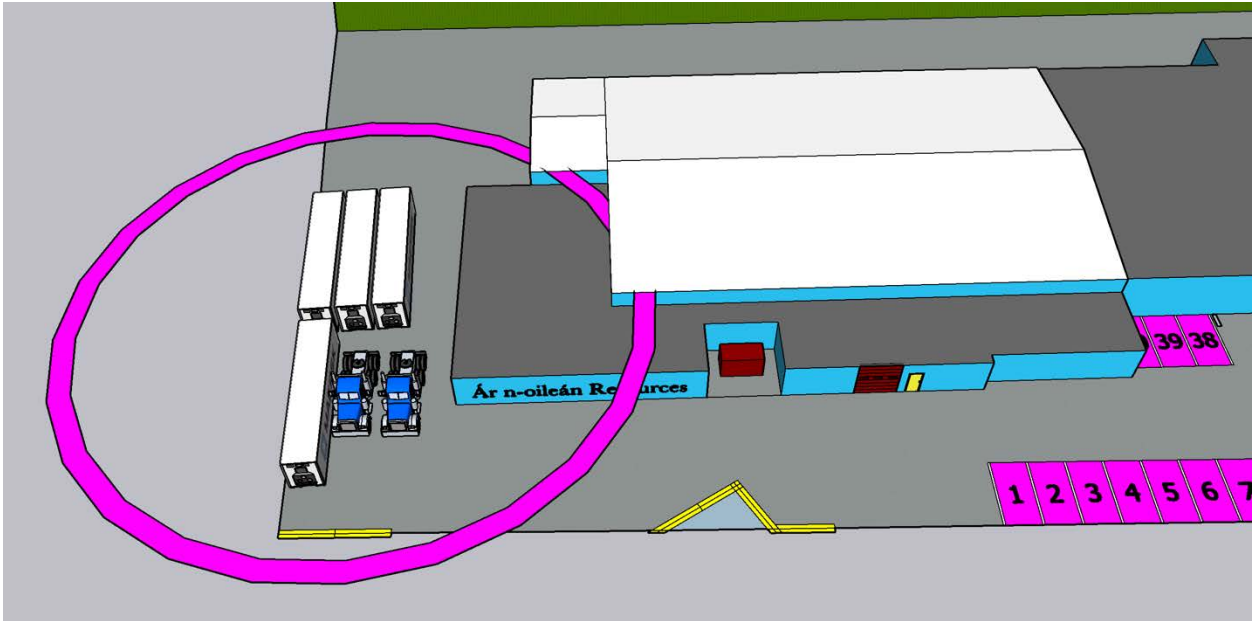


Figure 81 - East Coast Trail Association Recommended Parking Area



Figure 82 - Raw Material Transportation Route (satellite view)



The majority of the seals will be landed in St. John's and trucked to Tors Cove travelling on Highway 10 South and turning down Power's Road onto Long Run Road, which has sufficient room for the trucks to safely turn and navigate and was the same route tractor trailers utilized during Tors Cove Fisheries operations.

(Note: Power's Road is displayed as Long Run Road on Google Maps and Google Earth)

Figure 83 - Raw Material Transportation Route



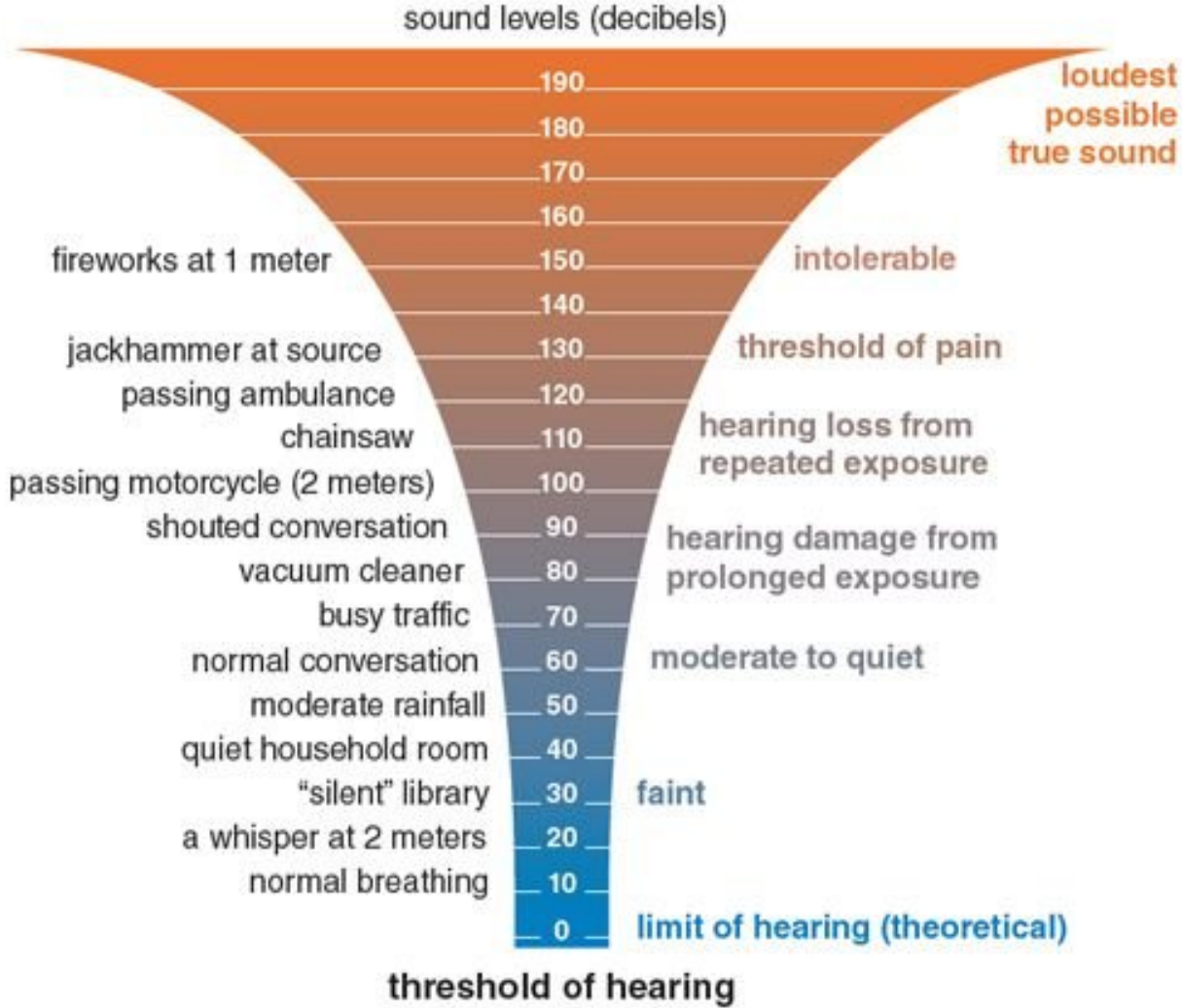
One to three trailers will be required to unload a sealing vessel depending on the payload and there will typically be one to two boats landed in a week with sealers staying at sea up to ten to fourteen days at a time.

It is estimated there will be six to twenty landings per year with twenty-five to fifty trailers of raw material entering the plant annually. These trailers will be unloaded on the day that they arrive at the plant during normal processing hours in the vicinity of~ 8am – 5pm. Finished product leaving the plant would require fewer trucks than the raw material brought in and would be exiting during the same aforementioned processing hours.

Some community residents fielded concerns at public meetings of sound pollution including trucks left idling in the yard as well as industrial machinery and shift change horns used during Tors Cove Fisheries operations. Any and all vehicles on Ár n-oileán property will adhere to the strictly enforced no idling policy, this includes pickup trucks and tractor trailers.

Sound tests were conducted in the plant at 135db and it was completely inaudible beyond the company property. Ár n-oileán will be installing insulated siding to the exterior of the facility adding further sound dampening.

Figure 84 - Sound Level Comparison Chart



Community residents also shared concerns of repellant odors emanating from the plant during operations having a negative impact on beach and East Coast Trail users.

The receiving zone of the facility is completely paved and, on a grade, to prevent the absorption of spills or the pooling of liquids. The surround paved yard continues to slope away from the facility towards the fence line. This area is washed down regularly to ensure it is free from material that could attract wildlife or insects.

All of the raw material enters the plant in covered fish tubs as shown below mitigating any potential odours.

Figure 85 - 1,000L Insulated Fish Tub



There are sixteen hanging HVAC air filtration units, custom designed by HVAC Specialties throughout the facility to filter particulate and gases from the air including mitigating potential odours. These units have 3 stage filtration including High Efficiency 4V HEPA filters which are 99.99% effective at 0.3 microns and far exceeds CSA standards for hospital operating rooms. They are also equipped with Needlepoint Bipolar Ionization Equipment (GPS NPBI), devices that neutralize pathogens such as moulds and viruses including COVID-19.

[More detail on HVAC air filtration units provided on Appendix 10.1 pg. 128](#)

6.3. Air Quality, Effluents & Pathogens

Ár n-oileán's proprietary, cold process for refining pinniped, vascularized, adipose tissue into high quality omega-3 oil mechanically separates the tissue chemical free. Although there are numerous other mechanical cold separation techniques utilized around the world for refining seal oil including but not limited to hydraulic, centrifugal and gravity fed, no other method produces a quality as high as Ár n-oileán's oil or produces it as efficiently. With this achieved quality the company models itself under nutraceutical standards instead of that of a typical seal plant.

By not using chemicals or heat to separate the seal fat it not only provides the highest quality oil attainable, but limits the production effluent to clean water and dramatically reduces off gases typically produced during a rendering process.

Since this will be a nutraceutical plant rather than a seal tannery or fish plant, the facility will have an array of sixteen custom designed, self-contained, HVAC air filtration units provided by HVAC Specialties. These are suspended from the ceiling to circulate and filter air within the building. These units have 3 stage filtration including High Efficiency 4V HEPA filters which are 99.99% effective at 0.3 microns and far exceeds CSA standards for hospital operating rooms. Airborne particulates and gases including odors are captured in these filters before they can exit the building. They are also equipped with Needlepoint Bipolar Ionization Equipment (GPS NPBI), devices that neutralize pathogens such as moulds and viruses including COVID-19.

These HVAC units provide air filtration but are not air conditioning units and as such do not contain any CFCs or other refrigerants commonly found in air conditioners.

[More detail on HVAC air filtration units provided on Appendix 10.1 pg. 128](#)

The receiving zone of the facility is completely paved and, on a grade, to prevent the absorption of spills or the pooling of liquids. All of the raw material enters the plant at section 4-A in covered fish tubs, mitigating any potential odours. The surround paved yard continues to slope away from the facility towards the fence line. This area is washed down regularly to ensure it is free from material that could attract wildlife or insects.

These tubs are kept sealed as they are transported from the holding section of building 4 to the mustering station in building section 3-B and are removed only to be fed through the splitters, separating the fat from the skins.

After the fat has been removed the skins are again placed into sealed tubs to be transported to the protein prep room in section 3-A where they are washed in large drums, dehydrated, packaged and frozen for sale as protein.

The wash drums are equipped with self-cleaning pumps that will capture any hair removed from the skins during the washing process, where it will be collected, bagged and disposed of at the Robin Hood Bay Waste Management Facility pending final approval from Eastern Regional Landfill.

The fat once removed is fed into the pharmaceutical grade, hermetically sealed oil refinery in building section 6, which is also equipped internally with the same rated HEPA and carbon filtration as used throughout the plant. Here the fat is mechanically separated during a cold process into three parts: Omega-3 oil, fat solids and water.

The oil is pumped directly into sealed IBCs (Intermediate Bulk Containers) and shipped for encapsulation.

The fat solids are also pumped directly into sealed IBCs. These containers are sold to both international and Newfoundland buyers.

Separated water from every batch along with samples of the grey water will be tested by an external laboratory that meets the requirements of the Accredited Laboratory Policy for testing to ensure all effluents released are within the acceptable limits as defined by Schedule A of the Environmental Control Water and Sewage Regulations.

The Accredited Laboratory policy can be found at: [Pollution Prevention - Environment and Climate Change \(gov.nl.ca\)](#).

Schedule A provided on Appendix 10.11 pg. 128 and at <https://www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm>

Effluents established Schedule A compliant are released through the plant's existing offal discharge system into the harbour about 200 feet North East of the wharf as shown in **Figure 86 and Figure 87** below. Ocean currents draw discharge away from the beach and with the company's primary operating months comes the added benefit of increased sea states and tidal movements within the harbour which increases the recycle flush rate of the area.

Figure 86 - Effluent Discharge Location

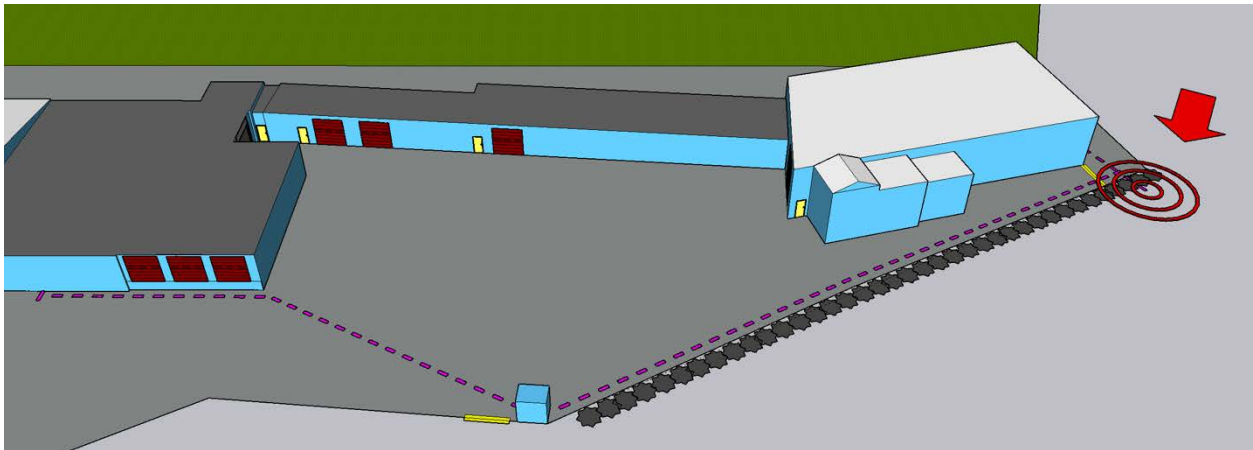


Figure 87 - Figure 88 - Effluent Discharge Location Distance to Wharf



Meat and organs once transported to the plant are boxed in building section 2-C, frozen and placed in cold storage until processing in section 2-D. Ár n-oileán plans to produce relatively small quantities of value-added meat products such as seal jerky and other charcuteries.

Seal carcasses and entrails will not be collected from the harvesters and will not be brought into the plant.

The meat processing equipment used to produce these products are on a commercial scale but not industrial. The walls and ceiling of the meat processing room are covered in CFIA approved panels, and the floor with a protective sealant. The HVAC Specialties supplied custom designed, self-contained HVAC air filtration units used in other parts of the plant are also used in this room, complete with 3 stage HEPA filtration circulating the air within the room.

Daily testing of meat and surfaces will be conducted for pathogens such as salmonella, listeria & Escherichia coli. At the end of every shift equipment will be washed down with CFIA approved, Environmentally Safe detergents. One such option for Ár n-oileán is Oxyl Clean Pro, a detergent that is not toxic to birds or any other wildlife and has NSF/ANSI 60 certification.

Information on NSF/ANSI 60 certification can be found at
https://d2evkimvhatqav.cloudfront.net/documents/NSF-ANSI_60_watemarked.pdf?mtime=20200716160320&focal=none)

Oxyl Clean Pro NSF certification is provided on Appendix 10.7 pg. 134
More information on Oxyl Clean Pro detergent is provided on Appendix 10.8 pg. 135

Once washdown grey water is established to be compliant with Schedule A of the Environmental Control Water and Sewage Regulations it will be released through the plants existing offal discharge system.

Schedule A provided on Appendix 10.11 pg. 128 and at
<https://www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm>

6.4. Migratory Birds, Gulls and Pest Control

The most frequent concern Ár n-oileán representatives heard from residents during public consultation meetings was the potential harm to migratory birds frequenting the nearby Witless Bay Ecological Reserve, in particular from effluents released into the ocean during operations.

Ár n-oileán engaged in direct communications with the coordinator for the Environmental Assessment, Canadian Wildlife Service, Environment and Climate Change Canada, the department in overseeing the migratory birds in question. Discussed were the potential impacts company operations could have upon the ecological reserve and the migratory birds and suggestions for mitigating these impacts.

The company will ensure the selected **Environmentally Safe**, CFIA approved detergents used during operations will be in compliance with the Migratory Birds Convention Act and its associated regulations. Under Section 5.1 of the MBCA, it is prohibited to deposit substances that are harmful to migratory birds into waters or areas that are frequented by migratory birds, or in a place from which the substance may enter such waters or such an area.

One such option for Ár n-oileán is Oxyl Clean Pro, a detergent that is not toxic to birds or any other wildlife and has NSF/ANSI 60 certification.

Information on NSF/ANSI 60 certification can be found at https://d2evkimvhatqav.cloudfront.net/documents/NSF-ANSI_60_watemarked.pdf?mtime=20200716160320&focal=none

*Oxyl Clean Pro NSF certification is provided on Appendix 10.7 pg. 134
More information on Oxyl Clean Pro detergent is provided on Appendix 10.8 pg. 135*

The company commits to ensuring any and all effluent released from the plant will be within acceptable limits as defined by Schedule A of the Environmental Control Water and Sewage Regulations and to utilize a 3rd party to monitor the receiving environment annually.

Schedule A provided on Appendix 10.11 pg. 151 and at <https://www.assembly.nl.ca/Legislation/sr/Regulations/rc030065.htm>

The Canadian Wildlife Service asks that any material that may attract Gulls be removed from the yard and garbage skips and dumpsters that may contain organic material be covered and removed on a regular basis. Any tubs or other holding devices that are stored outside will have been cleaned and free of any product or debris that could attract birds or pests.

The company anticipates utilizing nearly 100% of the organic material it accepts into the plant and therefore there will be very little thrown away. The plant's garbage and recyclables will be disposed of into clearly marked covered dumpsters or similar bins and removed regularly by Eastern Waste Management and local commercial waste haulers.

Figure 89 – Garbage & Recycling Bins



A certified pest control company will be contracted to provide ongoing pest control inside and outside of the facility.

In the event that Gulls begin nesting upon facility rooftops the coordinator asks that the company relay this information to the federal department so that they can ascertain and implement methods for removal and future deterrent.

The ecological reserve hosts the protected Leach's Storm-Petrel, a nocturnal bird attracted to large, bright, lights. The company recognizes that with the proximity of the plant to Witless Bay Islands Ecological Reserve, which hosts a large population of Leach's Storm-petrel and other migratory birds, light attraction is a concern and commits to making every effort to mitigate the amount of artificial light emitted from the property. As operations take place almost entirely during daylight hours, the company will not be installing external lighting beyond security lighting above doors which is necessary for safety concerns. There is an existing streetlight on the fenced boundary of the company property and the beach. As an added precaution the company will follow a suggestion from the coordinator of making sure security lights are aimed downwards whenever possible.

The Leach's fledging season runs from September through November, during these months in particular but also throughout the year, it is not entirely uncommon for these young birds to be blown ashore. The Canadian Wildlife Service coordinator has recommended that the company post Leach identifying material throughout the facility so company employees will be able to identify the birds if they are blown onto the property. Noting that approximately 95% of the company's operations will occur during January through May, Ár n-oileán will make sure that staff present during the off-season will be educated on identifying the birds.

The coordinator also indicated that a wildlife handling permit could be obtained so that company representatives can release lost birds back to flight. The company will apply for the Canadian Wildlife Services handling permit required to handle and release migratory birds that become stranded at the facility, which will be done following ECCC's 2017 Guidance "Procedures for handling and documenting stranded birds encountered on infrastructure offshore Atlantic Canada."

[CWS handling permit provided on Appendix 10.10 pg. 148](#)

ECCC's 2017 Guidance can be found at:

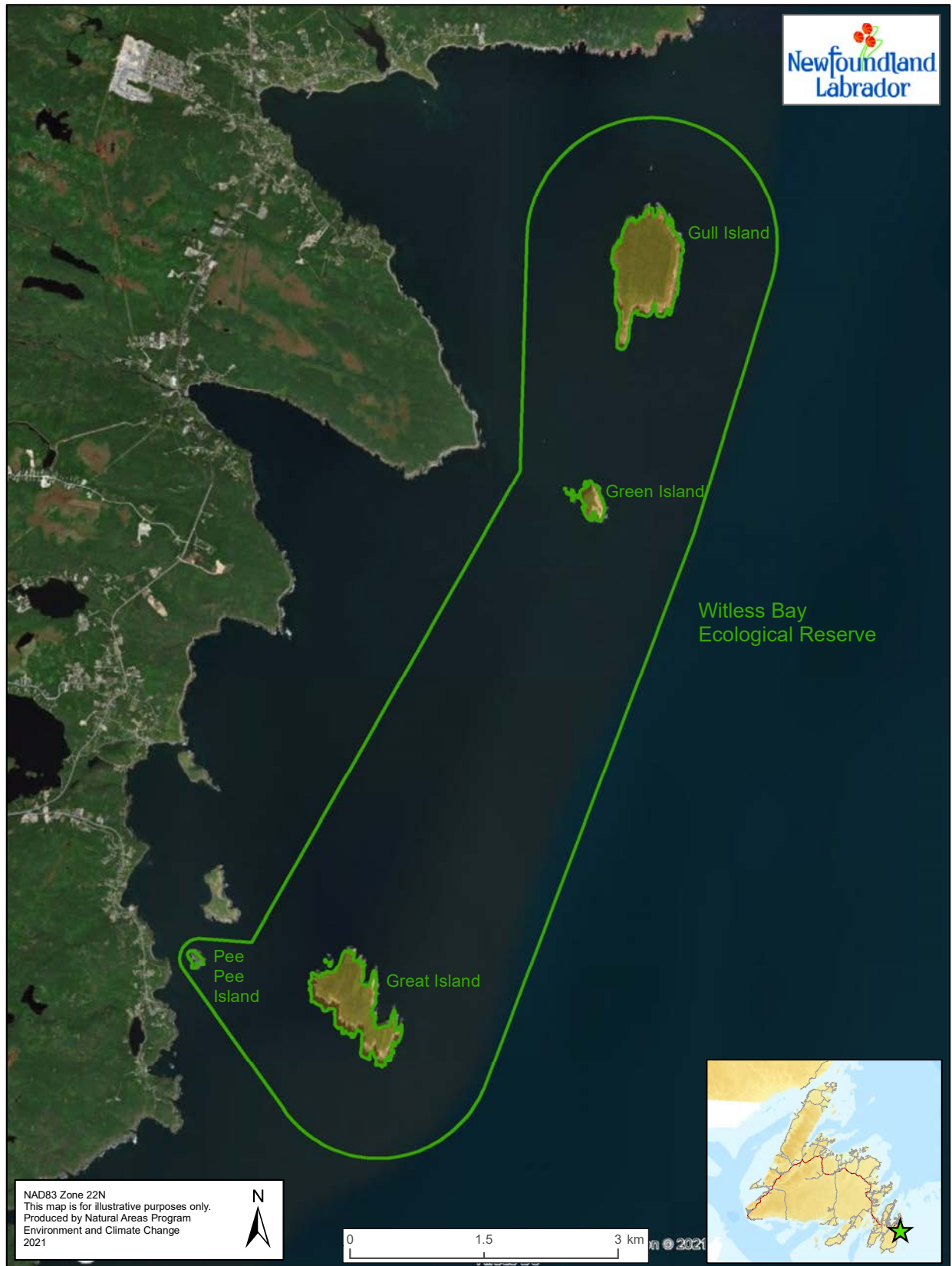
<https://www.cnlopb.ca/wp-content/uploads/mkiasseis/bestpracbird.pdf>

The company will also record any and all sightings of the Leach's Storm-petrel including dates and times, and provide The Canadian Wildlife Service of all such encounters to aid the department with their data accumulation.

Figure 90 - Leach's Storm-Petrel



Figure 91 - Witless Bay Ecological Reserve



6.5. Accidents & Malfunctions

For all companies' accidents and malfunctions are serious events and need to be handled in an effective manner. The company will define both a proactive and reactive approach to such events.

The proactive side includes but not limited to

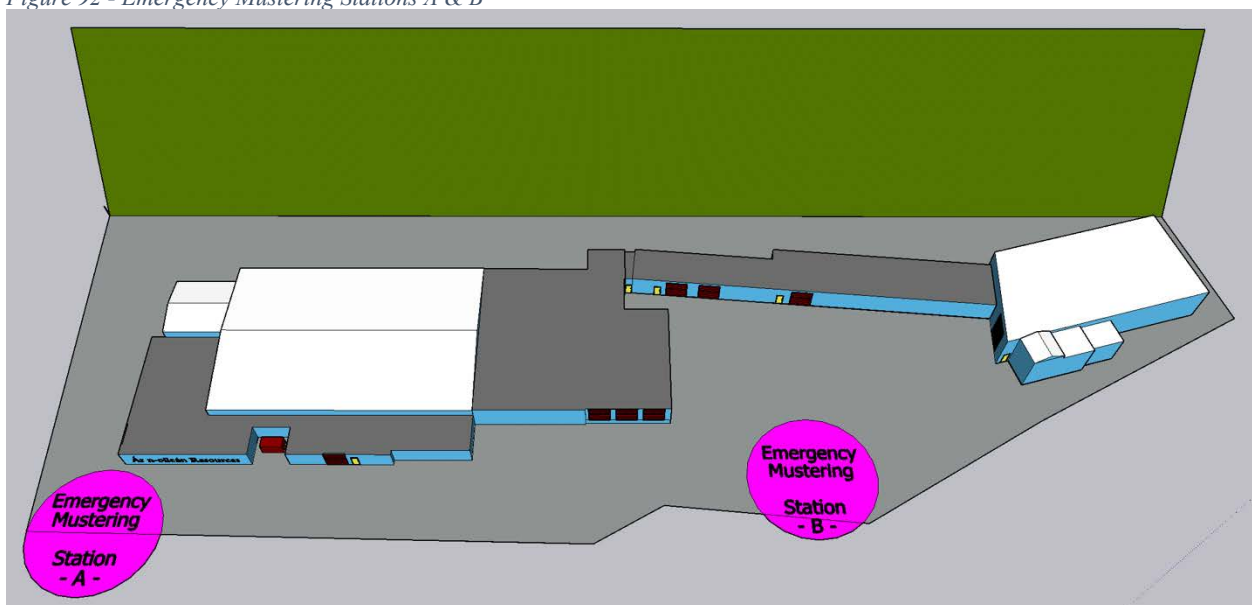
- Formation of a Joint Health and Safety Committee (JHSC)
- Employee training
- The company will strictly follow Department of Health & Community Services Covid-19 guidelines
- Meat & surfaces pathogen testing
- Defined emergency muster stations outside of the facility
- Fire safety devices & First Aid kits
- Spill prevention devices
- Equipment regular maintenance schedule

The company will have in place all required safety equipment and provide employees site specific training as well as any formal safety training required to work on site.

The company will have two emergency designated muster stations as shown below in **Figure 92**. If the alarm sounds there will be direction provided onto which muster station to go to which will be based on wind direction provided by a wind sock located on the building exterior.

- **Muster Station A** at the gate on the South / West corner of the property.
- **Muster Station B** at the 2nd gate on the South fence.

Figure 92 - Emergency Mustering Stations A & B



The safety training will be defined for each position and could include but not limited to:

- First Aid
- Advanced First Aid
- Internal Employee Fire Safety Training
- Forklift Training
- Equipment / Workstation Training
- WHMIS
- Occupational Health and Safety Training
 - Workplaces with 50 or more workers shall provide training for all occupational health and safety committee members
 - <https://nlec.nf.ca/occupational-health-safety-training/#!/calendar>
- Fall protection
- Confined Space Entry
- Defensive Driving
- Lifting and Rigging

A Joint Health and Safety Committee (JHSC) will be formed, consisting of one employee from all departments and a member of the executive branch, that will meet on a regular TBD basis.

The company will install and have the following supplies/equipment available:

Spill prevention

- SDS for all chemicals or other hazardous materials
- Internal employee training
- drop trays for trucks parked.
- Spill kits for any potential hazardous material

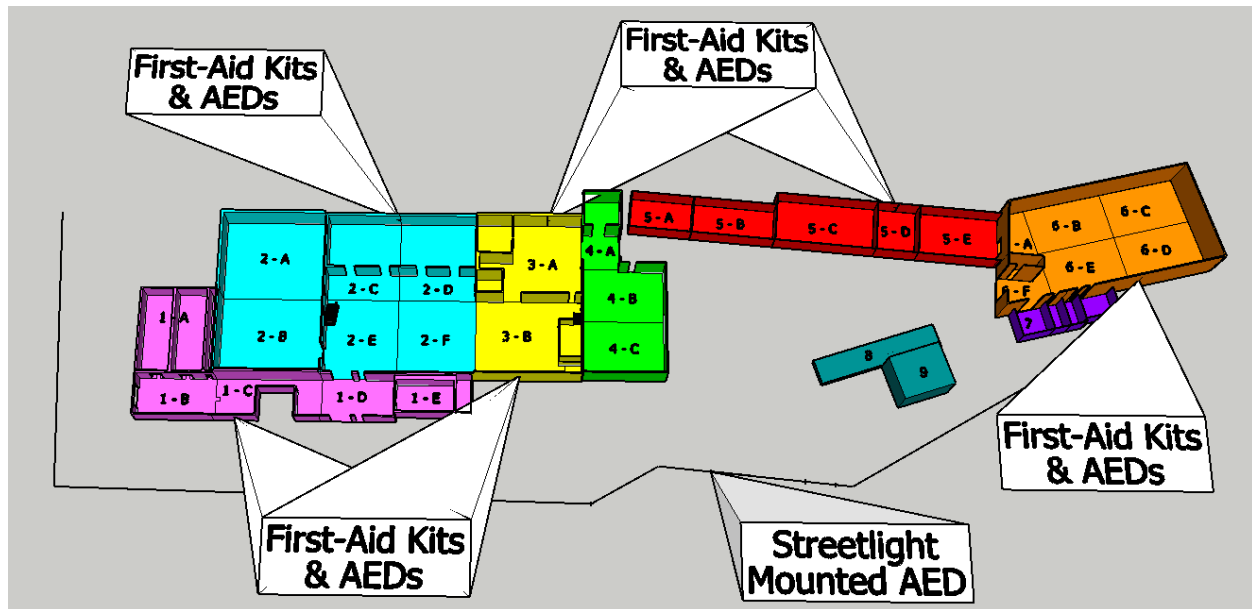
Fire Safety

- Smoke detectors
- Fire extinguisher
- Self-Contained Breathing Apparatus (SCBA)

First Aid

- First Aid Kits
 - Will meet or exceed CSA standard Z1220
 - <https://www.scc.ca/en/standardsdb/standards/29252>
- Eye Washing Stations
- AEDs (Automated External Defibrillator)
 - Multiple located within the facility and one external streetlight mounted

Figure 93 - First Aid Kits & AED Locations



The reactive side is the activation of an ERP (Emergency Response Plan). The company will have an ERP in place prior to operation that will detail the steps to be followed in event of accident, malfunction or significant community issue or weather.

The plan will include but limited to the following

- Contact information for Emergency services
- Contact information for Local community groups
- Internal Covid-19 Contact Tracing
- Communication protocol for community via social media, company site or other mechanism
- List of employees and their associated training.
- Defined Muster Stations
- Defined Safety system locations and their operation procedures
- Ammonia leak protocols.

The facility has an ammonia-based refrigeration system utilizing less than 900kgs of refrigerant within a closed system.

This system consists of an 80,000 ft³ cold storage room, two 4,000 ft³ and one 2,600 ft³ blast freezers powered by two 100HP compressors; one compressor to power the cold storage and one to power the blast freezers.

As required by code, an operator (Class-B refrigeration engineer or 4th-Class power engineer) must and will be on site when both compressors are operating and the building occupied.

This system will have an ammonia leak detector as per code requirements as well as an auto-dialer contacting a predetermined list of emergency numbers including but not limited to the engineer(s), the local fire department, the plant manager and Young's Refrigeration. The compressor room will be equipped with an exhaust fan and fresh air intake louvers. There will be a breathing apparatus for engineers in case of ammonia leak.

Even though this facility uses a relatively small amount of ammonia refrigerant and any occurring leaks would be of no hazard to neighbours and community members, it is standard procedure in such cases for the local fire department to notify the surrounding public.

Ammonia SDS is available in Appendix 10.5 pg. 132

Since the company's primary operation is the production of Omega-3 Oil and will be generating extremely large volumes of such it is anticipated that there will be an occasion where there is a leak or large spill in the facility, yard or transport trailer. The facility floors are all concrete and will be sealed with non-absorbent, nonslip coatings. The majority of the yard is paved and will prevent oil absorption into the ground. The company will have absorbent pads and rolls in numerous locations of the facility, specifically for the purpose of capturing spilled oil

7. DECOMMISSIONING & REHABILITATION

The company plans to operate this venture for many years and does not have a defined end date. The company sees the foundation of this project as very stable but severe unanticipated changes in procuring raw product or international markets could affect the ability to operate. In this event, assuming the eventual need to eliminate the entire project footprint from the landscape, the company could proceed with a staged decommissioning of the facility and demolishing of site infrastructure.

At this time, it is believed that hazardous material on the premises would be limited to the ammonia within the refrigeration closed system and forklift propane cylinders, both of which would be removed from the site before demolition of facility structures would commence.

Whenever possible materials such as doors, windows, metal roofing, fencing and electrical panels would be extracted intact and sold to liquidators for resale. Any and all metal materials not able to be sold intact would be collected and removed for recycling. Salvageable building materials such as lumber will be sold or repurposed. General debris generated during structure tear down would be contained in garbage skips or dumpsters and removed and replaced regularly.

The details of each stage of demolition would have to be fully defined with appropriated terms and conditions but at a high level could look like:

- All equipment including but not limited to primary processing equipment, secondary processing equipment, HVAC units, forklifts and fish tubs will be removed from the premises and sold.
- A company certified in the handling of refrigerants will be contracted to drain the ammonia from the closed system and remove it from the premises.
- Refrigeration equipment including but not limited to compressors, evaporators, condensers and piping will be disconnected and removed from the premises and sold.
- CFIA approved wall and ceiling panels will be removed and sold.
- All gyprock walls will be removed.
- Overhead doors, man doors and windows removed
- Water will be shut off and all plumbing disconnected and removed.
- Offal discharge infrastructure

- Infrastructure connecting the plant to the fire hydrant
- All lighting, electrical panels and electrical wires will be stripped, removed and recycled.
- Metal roofing removed and recycled.
- Plywood, lumber and roofing materials removed from structures.
- Cinder block walls knocked down and rubble.
- Concrete foundations rubble and removed.
- The entire lot would then be backfilled level with the surrounding area.

Please note that the department of Environment and Climate Change would be involved in all options. Any company or group that bought this property in any stage would have to converse with the government to validate planned usage and associated regulations. If the property must be fully remediated, Á n-oileán would have to submit a formal plan for guidance and approval.

8. PUBLIC INFORMATION MEETING

The company held a virtual Zoom meeting on Nov 20th, 2021 from 1:00pm to 4:30pm and an in-person meeting on Nov 27th, 2021 from 1:30pm to 3:30pm.

The meetings were structured to allow the company to provide an overview of the project and an opportunity for residents to voice concerns and ask questions.

Below, in no particular order, is a list of the main concerns voiced at the meetings along with brief responses and links for further information contained within the EPR document:

- Increased volume of heavy vehicle traffic
 - There will be an estimated 1 – 3 trailers entering the building 1 -2 times a week for a total of 25 – 50 trailers annually entering the plant and an estimated 25 -50 trailers of finished product exiting the plant annually.
 - [Reference: 4.9.8 Traffic – Car / Truck / Heavy Equipment / Forklifts pg. 75](#)

- Employee and commercial vehicle parking
 - There are 40 employee parking places within the fenced perimeter and the company has secured off-street parking from a local resident. Transport trucks and reefer containers will be parked on the West side of the facility.

 - At no time will employees or trucks need to park on the road outside of the fenced property and will not occupy parking spaces used by residents and visitors using the beach.
 - [Reference: 4.2 Physical Features pg. 23](#)

- The effects effluents on the Witless Bay Ecological Reserve
 - Ár n-oileán engaged in direct communications with the coordinator for the Environmental Assessment, Canadian Wildlife Service, Environment and Climate Change Canada, the department in overseeing the migratory birds in question.

 - The company commits to ensuring that any and all effluent released from the plant will be within acceptable limits as defined by Schedule A of the Environmental Control Water and Sewage Regulations.
 - [Reference: 6.4 Migratory Birds, Gulls & Pest Control pg. 106](#)
 - [Reference: Wildlife Management Plan pg. 174](#)

- Detergent being used
 - The company will be using a CFIA approved **Environmentally Safe** detergent for all machine and surface washdowns as well as for washing seal skins during processing
 - *Reference: 4.4 Offal Discharge pg. 34*

- Effluent volume
 - The company is estimating approximately 600,000 – 1,000,000 gallons of effluents will be discharged annually and will be composed entirely of grey water from skin washing drums, water separated from the seal fat and grey water from general plant and equipment wash downs.
 - *Reference: 4.4 Offal Discharge pg. 36*

- External Lighting
 - There is an existing street light boarding the property and the beach that illuminates a section of the yard.

 - The only other lighting being added will be standard security lighting above doors.
 - *Reference: 4.9.9. External Lighting Requirements pg. 78*

- Odours
 - All raw material enters the plant in covered fish tubs.

 - No raw material will ever be left in the yard

 - There are 16 hanging air filtration units throughout the facility neutralizing odours.
 - *Reference: 6.3 Air Quality, Effluents & Pathogens pg. 102*
 - *Reference: Appendix 10.14 Air Quality / Odour Mitigation Plan pg. 164*

- 3rd Party Batch Testing & Compliance Monitoring
 - Batch samples will be collected and transported to an external laboratory that meets the requirements of the Accredited Laboratory Policy for testing.

 - Water testing will be completed as per Schedule A of the Environmental Control Water and Sewage Regulations
 - *Reference: 4.9.6 Quality & Proposed Monitoring of Effluents pg. 71*
 - *Reference: Appendix 10.11 Schedule A – Environmental Control Water & Sewage Regulations pg. 151*

- Noise
 - Sounds tests were conducted within the facility at 135db and were inaudible beyond the company premises
 - Most of the operations will be conducted in typical working hours ~ 8:00 - ~ 5:00
 - There will be a strictly enforced no idling policy on company property
 - During the second phase of renovations and upgrades insulated metal siding will be installed upon the facility adding another layer of sound dampening
 - *Reference: 6.2 Tourism & Recreational Use pg. 100*
 - *Reference: Appendix 10.13 Noise Mitigation Plan pg.161*

- Water usage and community water pressure
 - Currently, and for numerous years, the facility's water intake room has been expelling just below 40 million gallons / year. Ár n-oileán is anticipating withdrawing 540,000 gallons / year, a 99% reduction in usage.
 - *Reference: 4.5 Annual Water Usage pg. 40*

- Asbestos
 - The facility walls are comprised of non-insulated cinder blocks
 - There is no asbestos or urea formaldehyde foam insulation (UFFI) on the premises
 - *Reference: 4.3.12 Removal Process of Hazardous Substances pg. 36*

- Tourism
 - 95% of all operations will be conducted from January through May
 - The company will be removing garbage and debris from the premises
 - The plant's rapid deterioration will be halted and the facility restored and secured.
 - During summer months the facility will schedule tours to provide information on the history of the NL seal industry and promote value added seal products including bottles of capsules, jerky, stews and sausages.
 - *Reference: 6.2 Tourism & Recreational Use pg. 96*

- Impact of traffic or parking on East Coast Trail users
 - Company representatives met with, and provided a property tour to, East Coast Trail Association operations manager Ed Delaney, who stated he didn't believe company activities would have a negative impact on ECT users.
 - Most of the company's operations take place during months with very little East Coast Trail usage
 - All employee and commercial parking are within the fenced property or upon secured off-street parking
 - ECT suggested parking is across from the trailhead in the opposite direction of truck routes
 - *Reference: 6.2 Tourism & Recreational Use pg. 96*

- Previous site locations
 - The company looked at numerous locations; the former Tors Cove Fisheries plant was the only property available to purchase that met enough criteria to operate
 - *Reference: 5.0 Alternatives pg. 83*

- 3rd Party Batch Testing & Compliance Monitoring
 - Batch samples will be collected and transported to an external laboratory that meets the requirements of the Accredited Laboratory Policy for testing.
 - Water testing will be completed as per Schedule A of the Environmental Control Water and Sewage Regulations
 - *Reference: 4.9.6 Quality & Proposed Monitoring of Effluents pg. 71*
 - *Reference: Appendix 10.11 Schedule A – Environmental Control Water & Sewage Regulations pg. 151*

- Number of jobs and where company expect to find them
 - During peak operations the company will employ between 40 and 50 people
 - There have already been dozens of local residents requesting work when operations begin.
 - *Reference: 4.9.10 Number of Employees & NOCs pg. 80*

- Mechanical separation process
 - A resident had googled seal oil separation and appeared to have only found information on heat rendering and molecular distillation using chemicals and didn't understand the company declaring it was using a cold process without the use of chemicals.
 - There are in fact numerous ways of mechanically separating seal fat without the use of heat or chemicals including but not limited to hydraulic, centrifugal and gravity.
 - Without publicly sharing the details of Ár n-oileán's proprietary separation process it is safe to say that the refinery will not use any chemicals beyond water nor does it include a boiler or furnace or any other heating method to render the fat.
 - The Ár n-oileán omega-3 oil refinery mechanically separates the seal fat in a cold process without the use of chemicals.
 - *Reference: 3.1 Nature of the Undertaking pg. 12*

- Operating times
 - 70% of operations are from January – February
 - 25% of operations are from March – May
 - 5% of operations are from June – December
 - Typical working hours for the majority of operations are conducted between ~8:00 - ~5:00
 - *Reference: 4.9 Operation & Maintenance pg. 52*

- Raw material transportation & Tors Cove wharf usage
 - There will be an estimated 1 – 3 trailers entering the building 1 -2 times a week for a total of 25 – 50 trailers annually entering the plant and an estimated 25 -50 trailers of finished product exiting the plant annually.
 - The trucks will travel over Route 10, turning down Power's Road and then onto Long Run Road arriving at the facility.
 - The company has no commercial use for the dilapidated wharf in Tors Cove harbour.
 - *Reference: 6.2 Tourism & Recreational Use pg. 96*

- **Septic System**
 - The plant has an existing septic system that the company plans to utilize based on successful verification, hookup and testing.
 - If this system is not functioning it will be decommissioned, and a new system will be installed.
 - *Reference: 4.3.11 Septic System pg. 34*

- **Seal meat test kitchen**
 - The company will be experimenting with creating various secondary value-added products such as sausages, jerky and other charcuteries in its test kitchen
 - As this is a relatively small test kitchen handling a relatively small amount of raw material, it will use a variety of commercial grade equipment such as slicers, canners and dehydrators but will not be using industrial sized equipment for these tasks
 - *Reference: 4.9.1 Operational Flow Through pg. 63*

- **Scientific consultation regarding oil refinery process**
 - The company was involved in years of research and development before an experimental prototype of the oil refining system was tested
 - The oil refining process was laboratory tested by the National Research Council (NRC)
 - *Reference: EXECUTIVE SUMMARY pg. 02*

- **Pest control**
 - Any material that may attract Gulls will be removed from the yard
 - Garbage skips and dumpsters that may contain organic material will be covered and removed on a regular basis.
 - Any tubs or other holding devices that are stored outside will be cleaned and free of any product or debris that could attract birds or pests.
 - A certified pest control company will be contracted to provide ongoing pest control inside and outside of the facility.
 - *Reference: 6.4 Migratory Birds, Gulls & Pest Control pg. 106*
 - *Reference: Appendix 10.16 Wildlife Management Plan pg. 174*

- Improving Communication with community
 - The company will have a manager designated as community relations officer
 - Providing details of ongoing and upcoming operations
 - Providing information and discussing job opportunities
 - Working with community-based groups
 - The company will create a website that provides updated information on planned operations.
 - The company will offer tours, based on the operational schedule, of the plant and its oil generation refinery.

- Climate Change
 - As described by United Nations Security Council Climate Change is the biggest threat modern humans have ever faced. It is a polarizing issue that has the world asking what can be done, by who and how do we measure success. There is no easy way out of this and it will require action from every individual, business, group and government. As with many businesses *Ár n-oileán* is looking at how to operate to minimize its carbon footprints like but not limited to:
 - Setting long term goals to move towards carbon neutrality
 - Raising awareness among employees
 - Promoting carbon reduction policies (ie: reduce, reuse, recycle, car-pooling, electric vehicles)
 - Using sustainable /more efficient technologies (ie: our cold temp oil processing versus traditional heat added processes)
 - Picking supply chain partners that share the company's environmental conscious practices
 - Reduce energy consumption

9. APPROVALS OF UNDERTAKING

This project requires multiple permits, licences and approvals. Some, such as the WUL, Ár n-oileán has already acquired. Others such as the Seal Processing Licence have been approved pending final CFIA inspection and some such as the Septic System Design approval may not even be necessary. Below in **Figure 94** is a list of all potentially required approvals:

Figure 94 - List of Potential Necessary Approvals

Received or Required Approvals	Issuing Agency
Release from EA Process	NL Department of Environment & Climate Change
Water Use Licence (WUL) Tors Cove Pond	NL Department of Environment & Climate Change Water Resources Management Division
(CFIA) On Site Inspection Approval	Canadian Food Inspection Agency (CFIA)
Seal Processing Licence	NL Department of Fisheries, Forestry and Agriculture
Septic System Design Approval <ul style="list-style-type: none"> <i>If new system necessary</i> 	Service NL
Approval to use Municipal Waste Disposal Site – St. John’s	Department of Public Works – Waste & Recycling Division, City of St. John's
Approval to use Municipal Waste Disposal Site – Sunnyside	Eastern Regional Service Board
Wildlife Handling Permit	Canadian Wildlife Service, Environment and Climate Change Canada