



Basic Startup Guide for the Direct Market Fisherman

Many fishermen are interested in marketing and processing their own catch aboard their vessels. For a drift gillnet fisherman who is subject to the vessel size limitation, this idea may seem like a pipe dream. Although there are many permitting and licensing requirements to follow, it is possible to get the necessary permits to sell minimally processed fish from your small vessel. This Sea Gram aims to instruct the direct market fisherman on some of the regulatory and permitting requirements that they must adhere to, in order to lawfully sell their catch from their vessels.

Preliminary Considerations

Processing applicants are subject to **all** applicable permitting requirements, including Alaska Department of Environmental Conservation (DEC), Department of Revenue, Department Fish and Game (ADFG), and Department of Commerce, Community and Economic Development. These permitting agencies are discussed below. Additionally, a vessel owner will want to seriously assess the condition, make, and year of their vessel. An older boat, primarily constructed of wood, may not be the best model for converting to a catcher-processor. Any exposed wood in the processing area will need to be sealed with a food-grade polyurethane coating. Although not a strict requirement, metal is much easier to clean and sanitize compared to wood or fiberglass.

Because marketing is such a big part of achieving a successful outcome for a small catcher processor, it may be prudent for a person just starting out in the business of selling fish to focus on the marketing aspect of running a seafood business, and gradually ease into processing their catch. Although it is not widely known or publicized, a fisherman may legally gill and gut their fish onboard their vessel if they are on the fishing grounds for more than 24 hours. This is **not** considered "processing." However, once you alter fish flesh in any manner, including freezing, it **is** considered processing, and DEC requirements must be adhered to. Also, some processors may offer a fisherman's discounted price for frozen product. Many marketers start out selling their processors' product, then ease into marketing their own product later on.

Direct Market Permitting Regulations

The State of Alaska provides a specific set of rules and regulations pertaining to direct market fishing vessels. Some of the rules are the same as for shore-based processors, while other rules are specific to direct marketers. A preliminary analysis of the fisherman's specific situation should determine whether a Direct Market Vessel Permit or the standard DEC Processor's Permit is required.

by Izetta Chambers

izetta.chambers@alaska.edu (907) 842-8323





ALASKA SEA GRANT MARINE ADVISORY PROGRAM

ASG-51 2010 doi:10.4027/sgdmf.2010

REALITY CHECK

Are you cut out for direct marketing?

Can you keep accounting records and maintain paperwork in good order?

Do you enjoy meeting and talking to people? Are you outgoing enough to make sales calls?

Are you detail-oriented?

Do you need to be paid immediately, or can you wait to collect your money?

How good are you at making people who owe you pay up?

Are you willing and physically able to do the extra work and commit the additional time to run a direct marketing operation?

Is your family supportive of a change to direct marketing?

Are you in a financial position to make the adjustment in time and money for your new direct marketing business?

Do you have the equipment and a boat that is big enough to properly handle the product?

Do you have access to ice or chilling equipment?

Do you have access to regular, reliable, affordable transportation to get your fish to market?

Is your species of seafood in high demand? Is it in short supply?

Do you have customers lined up?

Do you have a plan for selling your product?

Do you have enough cash available for up-front operating expenses and to cover your cash flow needs in case some customers don't pay, or if it takes time for your operation to become profitable?

Adapted from "Got the Goods?," p. 7 in Fishermen's Direct Marketing Manual.

Do you need a Direct Market Vessel Permit?

(Adapted from the DEC website)

You don't need a Direct Market Vessel Permit if:

- * You sell your catch directly to an individual who has a processor's permit;
- You sell your catch directly to a local retail market or food service establishment, if
 they have a written exemption from DEC allowing them to receive up to 500 pounds
 of raw fish from a fisherman weekly¹;
- * You sell your catch directly to consumers off the vessel; or
- You only gill and/or gut seafood, head or gut groundfish, or decapitate shrimp to avoid decomposition.

You do need a Direct Market Vessel Permit if:

- * You butcher, freeze, and package your catch2; or
- * You recover roe that will be used for food products (as opposed to bait).

Direct Market Vessel Requirements

A fisherman who sells fish under the Direct Market Vessel Permit can process only what that vessel catches.³ This means that a direct marketer cannot process another fisherman's catch, cannot tender or otherwise take possession of another fisherman's catch, and cannot buy fish from others to process on the boat. The reason for this regulation is that the permitting requirements for this size of an operation have been reduced because it is expected that the volume of product to be processed and the potential risks are low. Greater volumes necessitate stricter regulations, as the public health risk is higher when you get into larger volumes of fish.

Fish must be processed at least one-half mile offshore, in order to ensure good water quality and to minimize insect and bird activity. Processing in the harbor is not allowed. The U.S. Environmental Protection Agency (EPA) has issued wastewater discharge requirements that mandate grinding of fish wastes in federal waters (3 miles or more out from shore). However, non-permitted, noncommercial fishing vessels are exempt, and may be allowed to discharge gills and guts only for purposes of preservation. Within 3 miles of shore, an applicant must contact the Alaska DEC to obtain the most current Alaska Pollution Discharge Elimination System (APDES) application.

A direct marketer who processes onboard must complete a DEC Seafood Processors Permit Application and submit plans and drawings and a product label. This permit is specific to the facility (vessel) and not to the individual. This is for primary processing only and does not allow for ready-to-eat food, formulated products, canning or smoking, or other high risk food processing.

A cover is required over the designated processing area, which must be 20 mils or greater thickness or 18 oz. or greater with no stitch seaming or eyelets (heat welded seams only). If it is fabric or polyvinyl, the covering must be stretched tight like a drumhead to prevent suspended puddles of bird feces/rainwater over the processing areas. The designated processing deck must be covered entirely by the covering (e.g., a 10×7 food processing area with a 4×4 tarp won't be approved).

If constructed of wood, the designated processing deck (decking, side rails, bulkheads, etc.) must be covered with an impervious material such as metal, fiberglass, or plastic.

In addition to the above-mentioned requirements, a direct market vessel must have and maintain a marine-approved toilet with a hand-washing sink. If you plan to use a marine-approved toilet, you will want to ensure that a pump-out service is available at the dock where you offload your boat, take water, and receive ice. This is important to minimize the risk of food-borne illness that could contaminate your product and make consumers sick. You will also want to have adequate space for washing and sanitizing the cutting instruments that you use during processing, such as knives, cutting boards, etc. These must be cleaned and sanitized after each processing shift.

¹See 18 AAC 31.200(b)(D)

²¹⁸ AAC 34.500 (b)

³¹⁸ AAC 34.500 (b)

Processing Water Supply

Seawater may be used from a deck hose into a container, such as a tote, for the addition of chlorine. The 1.5 gallon industrial-sized bottle of Clorox is recognized as an acceptable source of chlorine. Filling the tote with seawater and pouring in Clorox is called batch chlorination. The approximate adequate free chlorine level should be 3 to 5 parts per million (ppm) because of the lack of screening of seawater and the potential for abundant debris in raw seawater.

DEC requires that processors keep a daily disinfection log to record the level of free chlorine for use each day. The recommended method for testing free chlorine levels is to purchase a low-level free chlorine tester such as the InstaTest tester manufactured by Lamotte Co. (see Resources). The chlorine test strips have a small testing area that changes color when swirled in the chlorine-seawater mixture. The color change on the plastic stick is compared to the scale for free chlorine levels on the stick container.

In order to ensure that you have a safe supply of processing water, you must install backflow preventers along your water line. This will prevent the line from drawing contaminated water from the floor of the processing area or from other areas that can harbor bacteria. A backflow preventer can be purchased at any hardware store, or through a plumbing supply store. You also will want assurance that the approved water source where you get your fresh water for on-board processing has a backflow preventer installed.

Table 1. Ratio of water to free chlorine.

Water volume	Dry chlorine concentration			Liquid chlorine concentration	
	70%	25%	15%	15%	5%
20 gallons	0.75 T	1.75 T	2.75 T	1.75 T	5 T
40 gallons	1.25 T	3.25 T	5.5 T	3.5 T	10 T
60 gallons	1.75 T	5 T	8 T	5 T	16 T
80 gallons	2.25 T	6.75 T	12 T	6.75 T	21 T
100 gallons	3 T	8 T	16 T	8.5 T	26 T
150 gallons	4.5 T	12 T	22 T	12.5 T	38 T
200 gallons	6 T	16 T	28 T	16.5 T	50 T

Amounts of chlorine are shown in tablespoons (T) required to give 50 ppm of free chlorine residual.

For 100 ppm of free chlorine residual, double the amounts above.

For 200 ppm of free chlorine residual, use four times the amounts above.

Dry measure or liquid measure: 16 tablespoons = 1 cup.

On-Board Sanitation

Sanitation is the key not only to a good inspection, but also for the primary objective of producing a safe food product. One thing to remember when it comes to sanitation is that the washing and sanitizing are separate steps and are not combined. For on-board processing, direct marketers must develop a sanitation plan. It would be wise to take a course in sanitation to gain a more thorough understanding of the regulations pertaining to seafood production. The Marine Advisory Program offers courses in sanitation; see http://www.alaskaseagrant.org/map/workshops/.

A thorough scrubbing with hot, soapy water is the preferred method for removing debris and achieving cleanliness before applying a sanitizing solution. A good rinse will remove soapy residue and achieve the most effective sanitation results.

Proper sanitation requires a 100-200 ppm chlorine solution. Another test system will be required for the higher level chlorine solution. In addition to the sanitizing solution as a step in the cleaning process, a boot dip and a hand dip should be located at the entrance to the processing area. This will minimize debris brought in on boots, and will ensure that you are handling fish with clean gloved hands. A typical boot dip consists of a 200 ppm sanitizing solution. The hand dip will likely be between 100 and 150 ppm. Hand and boot dips should be tested daily, as should any sanitizing solution. Make sure to label all chemicals clearly, and only keep approved chemicals within the processing area. For more information on labeling chemicals, see *Tips for Direct Marketers: The Onboard DEC Inspection*, by Torie Baker, available at http://www.alaskaseagrant.org/bookstore/pubs/ASG-45.html.

Ice and Chilling

To ensure the best quality fish and minimize food-borne pathogens, it is important to ice your fish right out of the net. This is especially important if you are out at sea and will travel some distances to offload your catch. Getting ice onboard a small vessel can be a challenge, but more ice machines are being purchased to ensure that ice is available in adequate supplies to Alaska's fishing fleet. **Please note: all ice must be from a DEC**-

approved ice source. If ice is unavailable in your locale, you may want to contact your regional Community Development Quota (CDQ) group, or Regional Seafood Development Association (RSDA). Many of these groups have grant funds available to improve the quality or capacity of the fishing fleet.

The preferred method for chilling fish is to suspend them in slush ice, or in slurry ice. To make slush ice, start with a few buckets of clean ice from a DEC-permitted source. You will need about equal parts of ice and water, until you have a mix that can allow the fish to float, suspended in the mix. The Seafood Producers Cooperative produced a very informative video series on seafood quality that details how to make a good slush ice mix. The Alaska Sea Grant Marine Advisory Program also has a video series called Salmon Quality for Gillnet Fishermen. It is available as a DVD and can also be downloaded at http://www.alaskaseagrant.org/bookstore/pubs/MAPV-66.html.

Offloading and Logistics

One of the biggest obstacles for the small direct marketer is getting the fish off of the boat and out to the markets. You will definitely need a reliable truck, or know someone that you can contract with to provide these logistics services. Communication is the key to success when you are handling matters of logistics. If you don't have reliable transportation to pick up and offload your fish, you may be left "high and dry," without enough water to float your vessel and keep on fishing. Additionally, each minute that you devote to offloading your vessel during an opening is a minute that you won't have your net in the water. The trick is to make sure to coordinate with whoever is helping you offload so that they are right there to meet you when you are ready to offload. You can help them by informing them ahead of time when you will be in port and what you will need for the offload. A cell phone or VHF radio is a critical communication tool to coordinate the pickup and drop off of fish from the boat, and supplies to the boat.

Shipping Supplies

You will need to have a good supply of boxes, box staplers, liners, labels, strapping tape, strapping machine or hand strapping tool, and gel ice for your fresh fish shipments. If you are in a village that doesn't have these

materials for sale, you will have to ship them in, typically by barge or airfreight. Note: gel ice is heavy and airfreight for gel ice packs is very expensive. You might want to consider purchasing the dry gel ice crystals and the empty bags and produce your own gel ice packs.

You should plan ahead and place your order for supplies in March or April, in time for the first barge. It is cheaper to buy the boxes in bulk, but you may not need that many. If you don't need the boxes, you may be able to mark them up for resale to lodges or other fishermen for shipping out their home pack. Please note: all packaging materials must be stored in a clean, dry place and protected against contamination.

If you are shipping long distances, you will want to have an insulating liner for your shipment. There are two types: Styrofoam inserts and insulated foil liners. Both claim to have the same insulating capacity, but the insulated foil liners pack up smaller and can be shipped a little more cheaply. However, they are quite expensive, typically costing more than the boxes! Some direct marketers prefer the Styrofoam inserts, as they claim that they perform better than the foil liners. However, Styrofoam inserts have a tendency to break apart during transport, and can be very messy when they break apart. Additionally, they tend to take up a little more storage space than foil liners. Some cities, such as Seattle, have become "Styrofoam-free." Your customers may

not like the environmental impacts of this material, and you would want to know ahead of time whether the city you are shipping to has a ban on Styrofoam products.



A direct marketer bleeding a salmon.

Recordkeeping and Reporting Requirements

The State of Alaska imposes a raw fish tax on the landed price of seafood. Therefore, a direct marketer will need to keep records of their catch that is sold. Additionally, ADFG requires that all catch data be reported daily, weekly, at the end of the season, and in the spring. These reports are required in order for ADFG to accurately keep track of catch data for their statistical reporting and management of the fishery. A direct marketer will be required to submit fish tickets weekly to their local ADFG office. Registration with the local office is required in order for ADFG staff to provide the direct marketer with information and keep them informed of reporting requirements. The Alaska Department of Revenue is responsible for issuing the Fisheries Business License Application and Intent to Operate. They are also responsible for collection of fish taxes imposed by any Regional Seafood Development Associations (RSDA). Bristol Bay and Cordova/Prince William Sound each have an RSDA that imposes a fish tax on the fleet. However, the Bristol Bay tax is imposed only on the drift fleet, not the setnet fleet.

Table 2 shows some of the important filing deadlines for permit applications, reports, and taxes.

Table 2. Deadlines for filing permit applications, reports, and taxes.

Agency	Report/application/tax	Due date	
Alaska Department of Environmental Conservation	Seafood Processors Application	January 31 recommended (or before fishing season starts).	
Alaska Department of Revenue, Tax Division	Fisheries Business License Application	March 15 recommended (or before fishing season).	
Alaska Department of Revenue, Tax Division	Fisheries Business Tax Return	March 31 (annually).	
Alaska Department of Fish and Game	Daily, weekly, end-of-season, and annual reports	Notify local ADFG office before operating, provide daily and weekly reports during fishing season, and notify when you are done for the season.	
Alaska Department of Environmental Conservation	Water test for each month of processing	First week of each month of operation. Contact local municipal water testing lab.	
Municipality or Borough	Raw fish tax	Varies by region. Contact municipality or borough.	
Regional Seafood Development Association	File and pay salmon enhancement tax	Last day of the month for the prior processing month. Contact Alaska Department of Revenue.	
U.S. Internal Revenue Service	Tax return for individuals, LLCs, and partnerships	April 15 annually.	

For up-to-date permit and license forms, go to http://fishbusiness.pbworks.com.

Resources

Alaska Sea Grant Marine Advisory Program

http://www.marineadvisory.org

Anchorage: (907) 274-9691 / Fax: (907) 277-5242
Bethel: (907) 543-4560 / Fax: (907) 543-4552
Cordova: (907) 424-7542 / Fax: (907) 424-3673
Dillingham: (907) 842-8323 / Fax: (907) 842-5692
Juneau: (907) 796-6046 / Fax: (907) 796-6301
Ketchikan: (907) 228-4551 / Fax: (907) 225-3895
Kodiak: (907) 486-1514 / Fax: (907) 486-1540
Nome: (907) 443-8410 / Fax: 907-443-5602
Petersburg: (907) 772-3381 / Fax: 907) 772-4431
Unalaska: (907) 581-4589 / Fax: (907) 581-2505

Alaska Department of Environmental Conservation (DEC)

Division of Environmental Health,

Seafood Section

Robert Pressley, Seafood Program Manager

(907) 269-3097

Mike Hyre, Seafood Permit Coordinator

(907) 269-6288

George Scanlan, Shellfish Coordinator

(907) 260-7638

555 Cordova Street, 5th Floor Anchorage, Alaska 99501-2617 Website: www.dec.state.ak.us/ Email: robert.pressley@alaska.gov

Direct Market Vessels website: www.dec.state.

ak.us/EH/fss/seafood/directmarket.htm

Alaska Department of Fish and Game (ADFG)

Division of Commercial Fisheries

P.O. Box 25526

Juneau, Alaska 99802-5526

Tel: (907) 465-4210

Intent of Operation and Catcher/Seller Permit

Information: (907) 465-6131

Fax: (907) 465-2604

Website: www.cf.adfg.state.ak.us Email: cfweb@fishgame.state.ak.us

Alaska Department of Revenue

Tax Division

P.O. Box 110420

Juneau, Alaska 99811-0420

Tel: (907) 465-2371

Fax: (907) 465-2375

Website: www.tax.state.ak.us

Alaska Department of Transportation

Division of Measurement Standards and

Commercial Vehicle Enforcement

12050 Industry Way

Building O, Unit 6

Anchorage, Alaska 99515

Tel: (907) 365-1239

Fax: (907) 345-7818

Website: www.dot.state.ak.us/mscve

Vendors of Seafood-Related Products

Alaska Butcher Supply: (907) 258-7502 (Sells knives, vacuum packaging equipment, and supplies)

LaMotte Corporation: 1(800) 344-3100 or (410) 778-3100

(Manufacturer of InstaTest chlorine test strips)

Daco Corporation: 1(877) 764-0453, www.dacocorp.com (Sells buckets, roe containers, handheld containers,

insulated totes, handcarts, etc.)

Frontier Packaging 1(800) 767-7333, www.frontierpackaging.com (Sells a thorough line of packaging materials for the seafood industry: waxed fish boxes, liners, gel packs, poly sheeting for insulating fish boxes, etc.; based in Seattle)

References

Alaska Department of Environmental Conservation. 2009. Seafood Processing and Inspection, 18 AAC 34.

Baker, T. 2006. Tips for direct marketers: The onboard DEC inspection. Alaska Sea Grant, University of Alaska Fairbanks. 6 pp. Available online at http://seagrant.uaf.edu/bookstore/pubs/ASG-45.html.

Brown, L. 2005. Common mistakes in HACCP: Standard Sanitation Operating Procedure. Alaska Sea Grant Marine Advisory Program, University of Alaska Fairbanks. 2 pp. Available online at http://seagrant.uaf.edu/ bookstore/pubs/ASG-38to41.html.

Johnson, T. (ed.) 2006. Business resource guide for Alaska fishermen Alaska Sea Grant Marine Advisory Program, University of Alaska Fairbanks. 56 pp. Available online only at http://seagrant.uaf.edu/bookstore/ pubs/MAB-57.html. Johnson, T. (ed.) 2007. Fishermen's direct marketing manual, 4th edn. Alaska Sea Grant Marine Advisory Program, University of Alaska Fairbanks. 96 pp. Available online at http://seagrant.uaf.edu/ bookstore/pubs/MAB-53.html.

Knapp, G., and T. Reeve. 2008. A village fish processing plant: Yes or No? University of Alaska Center for Economic Development, Anchorage. 125 pp. Available online at https://seagrant.uaf.edu/bookstore/pubs/M-89.html.

Mercy, D., director. 2009. Salmon quality for gillnet fishermen. Alaska Sea Grant Marine Advisory Program, University of Alaska Fairbanks. 30 min. Available online at http://seagrant.uaf.edu/bookstore/pubs/MAPV-66.html.

The Author

Izetta Chambers

University of Alaska Fairbanks Bristol Bay Campus

(907) 842-8323

Marine Advisory Agent

Alaska Sea Grant Marine Advisory Program

izetta.chambers@alaska.edu

Izetta Chambers is an assistant professor and agent with the Alaska Sea Grant Marine Advisory Program, University of Alaska Fairbanks, Bristol Bay Campus. Izetta can be reached at izetta.chambers@alaska.edu or (907) 842-8323.

Acknowledgments

Special thanks to Ernie Thomas, who served the Alaska Department of Environmental Conservation (DEC). Ernie provided assistance during the preliminary drafting of this Sea Gram. Robert Pressley, DEC Seafood Program manager, provided invaluable advice and commentary during the final editing stages. Additionally, Glenn Haight, seafood business specialist, and consultant Greg Fisk provided input and advice on regulation and permitting. Terry Johnson provided commentary and editing assistance.

For information on undergraduate and graduate opportunities in marine biology, fisheries, oceanography, and other marine-related fields at the University of Alaska Fairbanks School of Fisheries and Ocean Sciences, visit http://www.sfos.uaf.edu/.

The Alaska Sea Grant College Program is a marine research, education, and extension service headquartered at the University of Alaska Fairbanks School of Fisheries and Ocean Sciences. Alaska Sea Grant is supported by the National Oceanic and Atmospheric Administration Office of Sea Grant, Department of Commerce, under grant no. NA100AR4170097, (projects A/161-02 and A/151-01), and by the University of Alaska with state funds.







Marine Advisory Program, UAF 1007 West 3rd Ave., Suite 100 Anchorage, AK 99501 (907) 274-9691 map@sfos.uaf.edu marineadvisory.org Alaska Sea Grant, UAF PO Box 755040 Fairbanks, AK 99775 (888) 789-0090 seagrant@uaf.edu alaskaseagrant.org