

Project Title: Exempted Fishing Permit Proposal for Utilizing Electronic Monitoring Systems in Lieu of Human Observers in the At-sea and Shoreside West Coast Whiting Fishery.

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Applicants: Heather Mann, Executive Director
Midwater Trawlers Cooperative
PO Box 2352
Newport, OR 97365
(541) 272-4544
heathermunromann@gmail.com

Brent Paine, Executive Director
United Catcher Boats
4005 20th Avenue W, #116
Seattle, WA 98199
(206) 940-5852
bpaine@ucb.org

Purpose and Need for Exempted Fishing Permit:

Purpose

Ballooning monitoring costs and operational considerations form a well-defined need and justification to move forward with issuing an Exempted Fishing Permit (EF) for the at-sea and shoreside whiting fisheries. The purpose of the EFP is to determine whether utilizing cameras in lieu of human observers proves both cost effective and operationally effective while still providing 100% monitoring of catch and discards that adequately comply with the personal accountability requirements of Amendment 20.

Need

Amendment 20 was implemented in January 2011. The Trawl rationalization program includes individual transferable quotas for the shoreside whiting fleet and a cooperative system for the at-sea whiting fleet. A majority of west coast whiting fishermen participates in both sectors. Both programs require 100% monitoring of catch and discards as a fundamental component of the catch accounting system. Currently the monitoring mandate is accomplished using human observers provided by two National Marine Fisheries Service (NMFS) approved providers with the majority of the cost borne by the industry and a subset of the cost covered by a government reimbursement. While NMFS recently published a rule detailing a certification process for additional observer providers, it is our understanding that there are no observer providers immediately wanting to become providers for the west coast groundfish trawl fishery.

For 2014 the government reimbursement is \$216 of the total \$450-\$500 per day cost of a human observer. The cost of monitoring is only one piece of a larger financial burden that fishermen participating in the trawl groundfish fishery are facing. In addition to the normal operating costs associated with running a fishing vessel, there are several other government-imposed fees including state landings taxes (set to increase in Oregon), a 5% annual Buyback Loan payment and an annual Cost Recovery fee totaling 3% for the shoreside whiting fishery participants and 2.4% for mothership fishery participants. All of these costs are based on ex-vessel value – so they come out of a business’s gross earnings, which can equate to upwards of 15-18% of a vessel’s gross *before* paying out all the other costs associated with running the business. Human observer costs are expected to continue to increase in the coming years. Cost relief is the primary reason we are seeking to experiment with using electronic monitoring versus human observers in the whiting fishery. It is expected that monitoring costs will decrease with the use of cameras versus human observers. This expectation is based on previous experience and information gathered from a pilot program utilizing cameras in the west coast shoreside whiting fishery from 2004-2010. This expectation is further bolstered by data provided by the Pacific States Marine Fisheries Commission resulting from their most recent study.

Another primary reason we are seeking to utilize electronic monitoring in lieu of human observers is related to logistical and operational considerations. Human observers are just that – human. There are times when observers are unable to conduct their required sampling duties or they are unavailable to deploy when a vessel is ready to depart to go fishing. Comparatively, cameras are always on, they do not eat, sleep or get sea sick and once installed they are always ready to head out on a fishing trip, regardless of time or location.

Species Disposition:

All species harvested under this EFP must be covered by quota share or cooperative species allocation as currently detailed in the existing Amendment 20 regulations. This EFP mirrors fishing strategies that are currently employed in the whiting fisheries and the only difference is the use of a camera for monitoring versus a human observer. This EFP does not request a special allowance to harvest any additional species (species of concern or otherwise) and the disposition of all species should mirror current fishing operations and strategies. There is no set aside of any species – target or otherwise – with this EFP and impacts on rebuilding species are already considered and included in annual scorecard accounting and monitoring based on Amendment 21 allocations.

Broader Significance:

The proposed activity under this EFP will have broader significance than simply achieving certain goals for the applicants. There are other sectors and fisheries on the west coast that are interested in utilizing EM – the bottom trawl and fixed gear sectors of the trawl ITQ fishery as well as other Pacific fisheries in need of monitoring but unable to carry observers due to small vessel size or even safety

concerns. In addition, there is a national push to explore and implement electronic monitoring in a variety of fisheries utilizing an assortment of gears. The information garnered through this EFP will be very informative in helping to design and implement EM systems both on the west coast and around the country in other regions as well.

Duration:

The EFP would be issued for two years and cover two entire whiting seasons, which begins in May and continue through the remainder of any given year. We are seeking a 2-year EFP for the shoreside and whiting fisheries covering 2015 and 2016 fisheries.

Number of Vessels Covered:

Any catcher vessel which participates in the primary mothership or shoreside whiting fishery would be eligible to participate under this EFP as long as they meet all criteria and requirements as outlined in this application – this could be as many as 37 vessels. Midwater Trawlers Cooperative represents 23 catcher-vessels of which 18 participate in the at-sea and/or shoreside whiting fishery. Out of these 18 vessels, 16 have indicated a desire to utilize electronic monitoring if the opportunity is available and if the technology is cost-effective. United Catcher Boats represents 72 catcher-vessels of which 16 participate in the at-sea and/or shoreside whiting fishery. Out of these 16 vessels, we estimate 10 to 14 would utilize electronic monitoring beginning in 2015.

Whiting Fishery Description:

The West Coast whiting fishery is divided up into three distinct sectors: the shoreside fishery where vessels deliver to seafood processors onshore; the mothership sector where vessels catch and deliver the fish to at-sea seafood processors; and the catcher processor sector where vessels catch and process whiting on the same vessel. This EFP applies to the shoreside and mothership sectors. Currently the at-sea season begins May 15 and the full shoreside sector begins June 15 (there is a small shoreside fishery in California which begins in May). In 2015 both sectors are expected to begin May 15 following the implementation of an amendment to the program that changes the shoreside start date to effectively match the start date of the at-sea fishery.

Fishermen target Pacific whiting (also known as hake) with midwater trawl gear. There is no sorting of the catch at-sea and the crew works to get the catch into the fish holds and refrigerated seawater systems (RSW) as quickly as possible to ensure the high quality fish required by the market. Pacific whiting contain an enzyme that causes the flesh to deteriorate and break down rapidly unless the fish is significantly chilled down immediately after capture. All sorting of pacific Whiting is done at the processing level. For the shoreside fishery the catch is sorted at the shoreside seafood processor during the offload. In the at-sea fishery the catch is delivered directly to the mothership processor (the fish is never brought onboard the catcher vessel) and it is sorted during the offload period. Bycatch species typically

associated with both the at-sea and shoreside whiting fisheries includes rockfish and sometimes salmon.

Fishing activity is not expected to change under this EFP. There may be more flexibility for fishermen who are not bound by the scheduling restraints of human observers – but once on the water the strategies and fishing behavior should be consistent with recent years since implementation of the rationalization program.

History:

From 2004 through 2010 the shoreside whiting fishery operated under an EFP and cameras were required to monitor maximized retention on the catcher-vessels. The EFP was granted in order to exempt vessels from the onboard catch shorting required under the regulations. As noted above, the need to get the catch into the RSW systems as quickly as possible necessitated the exemption to sorting out prohibited or other species at-sea. The program was discontinued in 2011 when Amendment 20 was implemented, not because of shortcomings with the EM program, but rather to have a consistent monitoring program across all trawl groundfish vessels that provides 100% monitoring to support the personal accountability component of the program.

Scope:

This EFP application is to use an EM system in the whiting fishery for compliance with monitoring requirements only. Biological information collection is not part of this EFP but it is assumed that biological sampling will continue at the processing level for both the at-sea and shoreside fisheries similar to current practices. Currently human observers are not actively doing biological or other sampling on whiting vessels since the vessels are not sorting their catch at-sea. Observers do log any operational discards and under this EFP the vessel's captain will log any operational discards in the required logbook.

Eligible Vessels

Midwater vessels that are targeting non-whiting are not eligible for this particular EFP. Any whiting vessel that wants to take advantage of this opportunity must be a member of either MTC or UCB. MTC and/or UCB will be the applicant(s) for the EFP and the EFP will be administered through these organizations which will act as umbrellas for their member vessels that participate.

Maximized Retention

The participants will fish under a maximized retention scenario like the one that is used in the fishery now and described above. Participants in the shoreside fishery are required to dump unsorted catch directly below deck and would be allowed to land unsorted catch providing an electronic monitoring system is used on all fishing trips to verify retention of catch at-sea. Catcher vessels participating in the at-sea mothership fishery will continue to deliver full, unsorted cod-ends to a mothership processor. The mothership catcher vessels will not bring any filled cod-ends

onboard the catcher vessel but will deliver it directly to the mothership, as is the current practice.

Disposition of Prohibited Species

Disposition of prohibited species such as salmon or halibut will be the same as the procedures that are in place currently. In the shoreside fishery any prohibited species are sorted out at the plant, enumerated by the catch monitor, and turned over to the state of landing for donations to food banks. In the mothership fishery any prohibited species are sorted out by the mothership processor, recorded (enumerated) by the mothership's observer, and discarded at sea.

Video Review

We would like to test two approaches to the video review and see which one meets the requirements for 100% accountability and is most cost-effective. In the first approach, the vessel captain will self-report their catch and any operational discards in their logbook. The video from the cameras will be used as an "audit" to ensure correct reporting of discard events. After the reviewers watch the video for any reported discards (noted from logbook) the reviewers will then follow-up with a 10% random review of the remaining video seeking any unreported discard events. The additional 10% random review is patterned after the system that is currently utilized in the British Columbia groundfish fishery. The second approach is patterned after the recent Pacific States Marine Fisheries Commission study and involves 100% review of the video to ensure no discards are taking place.

This EFP seeks to have the EM provider also complete the logbook audit and video review – not NMFS personnel.

EFP Compliance

Any blatant unreported discard events that are discovered during the review will result in the immediate loss of EFP privileges for the remainder of the EFP. Any vessel that loses its EFP privileges will be required to carry a human observer for the remainder of the EFP. We are exploring whether or not the whiting at-sea and shoreside cooperatives would be appropriate for management of the EFPs or whether the applicant organizations would be more appropriate. We do not, however, envision individual EFPs for every participating vessel but rather an umbrella organization that will manage the EFPs.

Required Data Collection and Vessel Monitoring Plans

Fishermen will be required to complete a logbook that includes the following information:

- Date
- Set time
- Depth
- Time of net retrieval
- Latitude & Longitude

- Depth of head rope
- Estimated amount of catch
- Estimated amount of any operational discard

Applicants will work with a 3rd party provider to develop an electronic logbook – if an electronic logbook cannot be developed in time for when the EFP is implemented, than a paper logbook that captures the same information will be utilized (as is currently done in both the at-sea and shoreside whiting fisheries).

The vessel will work together with the EM provider to develop a Vessel Monitoring Plan (VMP) that will be approved by NMFS. The VMP will layout the placement of all cameras on the vessel and detail the criteria that the camera system must meet. It is assumed that the set-up that will be utilized will be similar or the same as that system used in the 2004-2010 pilot program. This system is comprised of a system control center, up to 4 cameras, a GPS receiver, a hydraulic pressure sensor, and a winch rotation sensor. Image and sensor data are stored digitally on a removable hard drive that can be exchanged at intervals (to be determined) during the fishery.

It is the responsibility of the vessel captain to ensure that all systems are operational before leaving port. Consultation between the EM service provider and the vessel is expected to be thorough and the captain is responsible for several aspects of the system including: keeping the system continuously powered while the vessel is at-sea, regularly cleaning camera dome surfaces to ensure sharp image resolution; conducting periodic inspections of system components and conducting regular system checks to ensure the EM system is performing properly; ensuring that camera view areas are adequately lit during night operations; immediately contacting program staff and NMFS if the EM system stops performing; and maintaining regular contact with service provider for data retrieval and service scheduling.

For the shoreside fishery the camera will be turned on once the first set is made and remain on until the vessel returns to port to offload. A shoreside trip averages 1-3 hauls and can last 1-2 days. The camera will not be required to be on while the vessel is initially transiting to the fishing grounds and a geofence will be established around the ports the vessel is utilizing. For the at-sea fishery a trip is defined differently – vessels stay on the fishing grounds delivering to the mothership over a period of several weeks. The camera will be on during the entire trip or less if the EM provider determines the camera can be turned off without impacting the integrity of the program.

For the shoreside fishery video and logbook information will be transmitted once the vessel returns to shore via the already existing shoreside catch monitor. During the at-sea fishery video and logbook information will be stored on board the vessel until it returns to port after finishing the at-sea portion of the fishery. Alternatively,

the video and logbook information could be transmitted to one of the observers stationed on the mothership.

A 3rd party organization (approved by NMFS) will be responsible for review of the logbook and associated video. We propose the EM provider will provide this service, not NMFS personnel.

Specific Regulations from Which an Exemption is Being Requested:

a. Under 50 CFR § 660.12 (a)(1) it is unlawful for any person to retain any prohibited species, which must be returned to the sea as soon as practicable with a minimum of injury when caught and brought on board. This EFP allows the permitted vessel to retain prohibited species until offloading and requires the vessel to deliver all catch.

b. Under 50 CFR 660.140 (h)(1)(i)(A) any vessel participating in the Pacific Groundfish IFQ fishery is required to carry an observer. This EFP allows participants to utilize EM in lieu of the requirement to carry observers

Reporting Requirements

- Trawl logbooks must be maintained as required by the applicable state law and include the information detailed above

Maximized Retention Requirements

- All catch must be brought on board the vessel and retained until offloading, with some exceptions:
 - Pacific whiting removed from the deck and fishing gear during cleaning may be discarded, provided that the total does not exceed one based from any single haul, with the maximum dimensions of the basket being 24 inches by 16 inches by 16 inches. All catch in excess of the one basket would need to be placed into the fish hold. Discarding species other than pacific whiting would be prohibited.
 - Large individual marine organisms, such as marine mammals or fish species longer than 6 feet in length, could be discarded provided the species and the reason for discarding were properly recorded in the required logbook
 - All incidentally caught marine mammals would need to be documented in the vessel logbook and reported to the NMFS Office of Protected Resources by submitting a completed Marine Mammal Authorization Program mortality/injury report form.
 - Unavoidable discard of catch would be the result of an event that is beyond the control of the vessel operator or crew. The quantity and all species discarded as a result of an unavoidable discard event would need to be estimated, and the location of the tow, and reason for discarding recorded in the logbook.

- Discard that results when more catch is taken than is necessary to fill the hold is within the control of the vessel operator and would continue to be prohibited.
- All prohibited species incidentally caught in a midwater trawl, and required to be retained under this section, would be abandoned to the State of landing immediately upon offloading.

EMS Requirements

- Owners of participating vessel would be required to arrange from EMS services from a NMFS-approved provider and pay all associated costs
- Vessels required to procure EMS services may also be required to carry an NMFS West Coast Groundfish Observer Program observer (for the purposes of capturing biological information)
- The vessel operator would be required to schedule maintenance of EMS equipment
- Before each haul is retrieved, the vessel operator would be required to check status of EMS control box to confirm that the EMS is functioning properly
- From 30 minutes before official sunset until 30 minutes after official dawn, each vessel covered under this EFP would be required to provide adequate lighting to areas where the trawl nets and fish are handled and fish hold openings, deck spaces, and the trawl ramp so the activities could be clearly recorded by the EMS cameras.