MEMORANDUM

TO: Council, SSC and AP Members

FROM: Clarence G. Pautzke
Executive Director

DATE: April 14, 1993

SUBJECT: Groundfish Regulatory Amendments, Initial Review

ACTION REQUIRED

(a) Initial review of the draft analysis supporting a codend mesh regulation.

(b) Initial review of the draft analysis on requiring total weight measurement in the Pollock CDQ fisheries.

(c) Receive discussion paper on the proposal to framework the opening date for the BSAI pollock 'A' season.

BACKGROUND

(a) Codend Mesh Regulation Proposal

At its December 1992 meeting, the Council received a proposal from the Highliners Association to require use of 90 mm single square mesh (stretched measure) in the upper portion of all codends used in BSAI and GOA directed pollock fisheries. The purpose of the proposed amendment is to allow the escapement of undersized pollock, resulting in fewer discards and a higher percentage of larger fish. At the present time, BSAI and GOA groundfish regulations do not require a minimum mesh size or a particular design configuration for codends in the North Pacific trawl fisheries.

The draft EA/RIR on this proposal was mailed to you on April 9, 1993. An executive summary of this analysis is attached as Item D-3(a)(1). The three alternatives examined in the analysis are:

Alternative 1: status quo,

Alternative 2: 90 mm minimum stretched measure, single layer square mesh in the top panel of the codend (70 mm BK measure),

Alternative 3: 110 mm minimum stretched measure, single layer square mesh in the top panel of the codend (90 mm BK measure).

Additional research on codend selectivity for the pollock fishery is currently underway, and could provide information that could be used to update or refine the proposed regulation. Recently, the Alaska Fisheries Development Foundation (AFDF), in cooperation with Dr. Ellen Pikitch (UW) and

Chris Bublitz (FITC) received S-K funding for a proposal to study codend selectivity on Alaskan pollock. The results from this study will be beneficial for the development of mesh size regulations; however, the results of this study will not be available until 1994. AFDF will be holding a planning session on Wednesday, April 21, at 7:00 p.m. to discuss their project. The public is invited to attend.

The Council can review the draft EA/RIR for adequacy, receive public testimony on this issue, and decide to release the document for public review. If the decision is to send the document out for public review, it will be scheduled for final action by the Council at the June meeting.

(b) Total Weight Measurement

In January 1992, the Council recommended that NMFS develop a regulatory amendment that would require accurate estimation and reporting of total catch by species for all groundfish fisheries within the Exclusive Economic Zone (EEZ) of the GOA and BSAI. Accurate measurement of total catch weight is necessary to improve information about total removals from groundfish stocks, to improve in-season management of groundfish total allowable catches (TAC) and other species bycatch, to improve the effectiveness of the Vessel Incentive Program (VIP), and to improve data used to prepare stock assessments.

Over the past year, NMFS has updated the Council on this issue and discussed some of the difficulties with developing regulations requiring total catch measurement either by volumetric measurement or weight measurement by scales. At this meeting, NMFS will have available a draft analysis that addresses a proposed regulatory amendment to require improved total catch measurement by processors participating in the Western Alaska Community Development Quota (CDQ) pollock fisheries.

Alternatives considered in the analysis include:

> Alternative 1: No Action. The pollock CDQ fisheries will continue to be managed with one observer and no requirements for processors to provide specific equipment to improve total catch estimation.
>
> Alternative 2: Two observers and certified bins. This alternative will require all processors participating in the pollock CDQ fisheries to have two observers. In addition, all processors must provide, at a minimum, certified receiving bins accessible to observers for use in volumetric estimates of total catch.
>
> Alternative 3: Two observers and certified scales. In addition to requiring two observers, all CDQ processors must provide certified, secure and tamper-proof scales to weigh all fish prior to sorting and discard. Observers must be allowed access to the scales and must be able to periodically verify the accuracy of the scales.

After receiving public testimony on this issue, the Council can decide whether to send the draft analysis out for public review. This will enable the Council to take final action on this issue at the June meeting, allow adequate time for Secretarial review, and have the proposed measure implemented prior to the start of the 1994 pollock CDQ fisheries.

(c) Framework Opening Date for the Pollock 'A' Season

At the January meeting, the Council requested development of a framework amendment which would allow the opening date for the BSAI pollock 'A' season to be set during the September-December annual specifications process. This flexibility would allow for the setting of the date annually to ensure maximum benefit from the 'A' season pollock harvest.

A discussion paper and detailed outline of the amendment package will be presented at the Council meeting. The Council can review this information and provide additional comments to staff. The analysis can be finalized and sent out for review prior to the June meeting if the Council's desire is to pursue this management measure. Final action on the regulatory amendment can be made at the June meeting, allowing enough time for Secretarial review so that the measure is in place for the 1994 pollock season. Attached as Item D-3(c)(1) are two letters from shoreside processors indicating reasons for and against this proposal.

EXECUTIVE SUMMARY
CODEND MESH REGULATION PROPOSAL

At its December 1992 meeting, the Council received a proposal from the Highliners Association to require use of 90 mm single square mesh (stretched measure) in the upper portion of all codends used in BSAI and GOA directed pollock fisheries. The purpose of the proposed amendment is to allow the escapement of undersized pollock, resulting in fewer discards and a higher percentage of larger fish. At the present time, BSAI and GOA groundfish regulations do not require a minimum mesh size or a particular design configuration for codends in the North Pacific trawl fisheries.

Codend mesh traditionally used in the pollock fisheries is diamond mesh, with sizes ranging from 1.2" to 5.5" (30 mm - 140 mm) stretched measure. Over the past few years, there has been a trend towards single-layer knotless codends and away from double- and triple-layer, knotted codends in the pollock fisheries. This move has been entirely voluntary on the part of fishermen. Mesh sizes currently used in single-layer pollock codends have varied between 4" and 4 1/2" stretched measure (100 mm -115 mm), or 85 - 90 mm between knot (BK) measure. Generally, surimi operations favor smaller mesh sizes than preferred by fillet boats.

The draft EA/RIR on this proposal was mailed to you on April 9, 1993. The three Alternatives examined in the analysis were:

1. status quo,

2. 90 mm minimum stretched measure, single layer square mesh in the top panel of the codend (a 70 mm BK measure), and

3. 110 mm minimum stretched measure, single layer square mesh in the top panel of the codend (a 90 mm BK measure).

To determine the effects of the mesh regulation set under Alternatives 2 and 3, the 90 mm square mesh selectivity curve and the 110 mm square mesh selectivity curve of Matsushita et al. (1992) were applied to survey length frequency data for Bering Sea pollock. To test for sensitivity to changes in population length frequency, data from the 1982, 1985, 1988 and 1991 NMFS North Pacific triennial surveys were used. The simulated catches were compared to the length frequency data from actual catches for these years.

The simulations indicated that had a 90 mm mesh regulation been in effect for any of the years examined, with the mesh selectivity assumptions mentioned previously, discarding of small fish less than 35 cm (14") would not have been significantly reduced. Discarding would have been reduced from about 10% to about 8%. The simulations indicated that a higher reduction in discarding could have been achieved had a 110 mm square mesh codend been used during the years examined; less than 1% of the total catch would have been smaller than 35 cm. Alternative 3 could provide some benefits to fishermen in the form of less sorting time required, and capture of larger, more valuable fish.

One factor that could not be quantified was the amount of escapement mortality that occurs to small fish after they have been filtered through the codends. Pollock escaping from a 100 ton codend could potentially be extruded under great force, causing high stress and scale loss resulting in delayed mortality, and therefore have a potentially high escapement mortality rate. Escapement mortality may offset any potential gains in yield- and spawning stock biomass-per-recruit.

Enforcement of mesh regulations as proposed may be difficult. The proposed regulatory amendment would require enforcement to determine if a vessel is conducting a directed fishery for pollock. As such, any vessel with less than 20 percent pollock could still target on pollock with small mesh. The regulation would also have to address codend liners, twisted meshes, net strengtheners, etc., that can be used to circumvent the regulation. Attached to this memo is a letter from NMFS Enforcement detailing their concerns on a codend mesh regulation.

The proposed regulation will have some costs to fishermen in the form of replacing the top panel of codends ($5,000 to $8,000 each), and increased effort required to reach the TAC.

Additional research on codend selectivity for the pollock fishery is currently underway, and could provide information that could be used to update or refine the proposed regulation. Recently, the Alaska Fisheries Development Foundation (AFDF), in cooperation with Dr. Ellen Pikitch (UW) and Chris Bublitz (FITC) received S-K funding for a proposal to study codend selectivity on Alaskan pollock. The results from this study will be beneficial for the development of mesh size regulations; however, the results of this study will not be available until 1994.

GROUNDFISH FISHERY MANAGEMENT PLAN AMENDMENT PROPOSAL
North Pacific Fishery Management Council

Name of Proposer: The Highliners Association Date: January 12, 1993

Address: 4055 21st Avenue West, Suite 200
Seattle, Washington 98199-1298

Telephone: (206)285-3480

Fishery Management Plan: Groundfish-Gulf and Bering Sea

Brief Statement of Proposal: This proposal would require use of 90mm single square mesh in the upper portion of all codends. At present about 10% of the TAC is discarded to the sea because it is below size acceptable to pollock processors. The increase in mesh size should help to significantly resolve this problem.

Objectives of Proposal: (What is the problem?)
The objective of this proposal is to increase the use of the usable portion of the TAC. It is expected that if the waste is reduced 50% the overall value of the fishery could increase more than $20 million to fishermen, and $40 to $50 million to processors.

Need and Justification for Council Action: (Why can't the problem be resolved through other channels?)
We feel that because of current support for an increase in codend mesh size that progress can be made through voluntary change. Nevertheless, in the long-term, reducing unnecessary biological and economic waste should be a mandate of the Council.

Foreseeable Impact of Proposal: (Who wins, who loses?)
All fishermen and processors win in a two to four year period. Some short-term losses which will require slightly increased towing time or making several extra tows might occur in the first year or two.

Are There Alternative Solutions? If so, what are they and why do you consider your proposal the best way of solving the problem?

Not that we know of.

Supportive Data & Other Information: What data are available and where can they be found?

Attached.

Signature:

Dayton L. Alverson, Technical Advisor
The Highliners Association

UNITED STATES DEPARTMENT OF COMMERCE
N.O.A.A. / National Marine Fisheries Service
Alaska Enforcement Division
P.O. Box 21668
Juneau, Alaska 99802-1668

March 30, 1993

Mr. David Witherell
North Pacific Fishery
Management Council
P.O. Box 103136
Anchorage, AK 99510

RE: Minimum codend mesh size for the directed pollock fishery.

Dear David,

Thank you for the opportunity to comment on the proposed amendment for a minimum codend mesh size for the directed pollock fishery. In general we do not have any objection to mesh size regulations provided the regulations clearly describe the gear to the extent that an observer or a boarding officer can readily determine compliance. Any such regulation should clearly describe the means by which the mesh is to be measured. The regulation would also have to address issues such as net mending, codend liners and any other devices which would negate minimum mesh size.

We are concerned that the mesh size proposal is species specific and tied to "directed fishing standards". The proposal as currently stated would require us to determine that the vessel is conducting a directed pollock fishery. Directed fishing is determined by the amount of fish retained during a trip. In the case of pollock, a vessel is not conducting a directed fishery unless the pollock on board is equal to or exceeds 20 percent of all retained catch. If a vessel has less than twenty percent pollock on board, use of a smaller mesh size to target on pollock would not be illegal. It is not a simple matter of just determining mesh size and what is in the codend. The regulation as proposed would require in depth inspection and auditing of production records to prove a violation. I doubt that observers would be able to sufficiently document a violation of the minimum mesh size regulation as proposed.

I would suggest that a more effective means of implementing a mesh size requirement is to make the minimum mesh requirement applicable to all trawl fisheries. Regulations should additionally include a prohibition against having smaller mesh codends on board. Other fisheries that require smaller mesh

could be accommodated by allowing it's use in specific areas and time frames. This would reduce enforcement and compliance monitoring to a question of time and area only without regard to fishery or amount of product retained by species.

I have discussed this issue with Capt. Anderson of the 17th CGDIST and he concurs with our comments. Please contact me if you have any questions.

Respectfully,

David C. Flannagan
Special Agent in Charge

cc:17CGDIST-B.Anderson
F/AKR-R.Berg
R.Hegge

file:DOMESTIC\WITHRL-3.LTR

AGENDA D-3(b)
APRIL 1993

DRAFT FOR COUNCIL REVIEW

ENVIRONMENTAL ASSESSMENT
and
REGULATORY IMPACT REVIEW/INITIAL REGULATORY FLEXIBILITY ANALYSIS

FOR A REGULATORY AMENDMENT TO REQUIRE IMPROVED TOTAL WEIGHT MEASUREMENT IN THE BERING SEA/ALEUTIAN ISLANDS COMMUNITY DEVELOPMENT QUOTA POLLOCK FISHERIES

Prepared by

National Marine Fisheries Service
Juneau, Alaska

April 19, 1993

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1.0 INTRODUCTION

The groundfish fisheries in the Exclusive Economic Zone (EEZ) (3 to 200 miles offshore) of the Bering Sea/Aleutian Islands (BSAI) are managed under the Fishery Management Plan (FMP) for Groundfish of the Bering Sea/Aleutian Islands. The plan was developed by the North Pacific Fishery Management Council (Council) under the Magnuson Fishery Conservation and Management Act (Magnuson Act) and become effective in 1982. The structure of the FMP allows certain measures to be changed by regulatory amendment without amending the FMP itself. Specifically, this Environmental Assessment/Regulatory Impact Review/Initial Regulatory Flexibility Analysis (EA/RIR/IRFA) addresses a proposed regulatory amendment to require improved total catch measurement by processors participating in the Western Alaska Community Development Quota (CDQ) pollock fisheries.

Actions taken to amend Fishery Management Plans or implement other regulations governing the groundfish fisheries must meet the requirements of Federal laws and regulations. Among the most important of these are the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA) Executive Order (E.O.) 12291 and the Regulatory Flexibility Act (RFA). NEPA, E.O. 12291 and the RFA require a description of the purpose and need for the proposed action as well as a description of alternative actions which may address the problem. This information is included in Section 1 of this document. Section 2 contains information on the biological and environmental impacts of the alternatives as required by NEPA. Impacts on endangered species and marine mammals are also addressed in this section. Section 3 contains a Regulatory Impact Review (RIR) which addresses the requirements of both E.O. 12291 and the RFA that economic impacts of the alternatives be considered. Section 4 contains the Initial Regulatory Flexibility Analysis (IRFA) required by the RFA which specifically addresses the impacts of the proposed action on small businesses.

1.2 Purpose of and Need for the Action

The Western Alaska Community Development Quota (CDQ) program for pollock was established under Amendment 18 to the BSAI FMP (The "inshore/offshore" amendment) which was approved by the Secretary of Commerce in 1992.[1] The CDQ program is intended to help develop commercial fisheries in western Alaska communities. Amendment 18 provided for an annual allocation of 7.5 percent of the BSAI pollock total allowable catch (TAC) to the "CDQ reserve". This amount represents one-half of the annual non-specific reserve of pollock.

Pollock CDQs are assigned to organizations representing eligible Western Alaska communities who have submitted a Community Development Plan (CDP) that has been approved by the Governor of Alaska and the Secretary of Commerce. Each approved CDP receives a portion of the overall pollock "CDQ reserve". The harvest and processing of these CDP quota allocations are typically carried out by established fishing companies and their harvesting or processing vessels and plants either by purchasing the fish outright or by entering into partnerships with the CDPs. The details of each arrangement are available in the CDPs. In 1992 and 1993, six CDPs were submitted and approved with each having from one to several processors harvesting the CDPs allotted quotas.

In the open access fisheries, many individual vessels are attempting to maximize the proportion of the overall quota they harvest before the fishery closes upon reaching the established total allowable catch (TAC), a prohibited species bycatch allowance, or the implementation of some other

[1]The CDQ program and implementing regulations are described at 57 FR 48139, October 7, 1992 and 57 FR 54937, November 23, 1992.

management measure. In this situation, the individual vessel is not limited by their own harvests, but rather by the closure of the fishery due to the combined action of the fleet. Under this system, there is no direct cost to the individual processor for fish that they have caught. If total catch is over or underestimated for an individual processor, that error is distributed among all of the fishery participants in aggregated data.

In the case of the CDQ fisheries, each CDP has their own quota which they in turn allocate to their contracted or partner processors. In some cases, processors have been allotted a specific amount by their CDP, in others they have simply been accountable for their catch as a part of the overall CDP's quota. In either case, the derivation of total catch on an individual processor basis takes on an immediate economic dimension because the processor must compensate the CDP for the fish they are reported to have caught. If the processor's harvest is over-estimated they become accountable for fish they did not catch. If, on the other hand, the processor's harvest is underestimated the quota for this fishery may be exceeded and the CDP may not be properly compensated.

Technically, NMFS is responsible for informing the representative designated in each CDP when their allocation has been reached while the CDP's managing organization takes primary responsibility for managing their contracted or partner processors in a manner which prevents exceeding any given area's allocation. In order to manage effectively, each CDP must know how much pollock has been harvested by each of their contracted processors. In practice, the determination of this total catch is derived from a blend of the observer and production data and has required a NMFS determination as to the most accurate catch figure for each participating processor. As these figures are needed for the CDP's inseason management, this determination has to be made and monitored on a daily basis taking the full time of one NMFS staff member during ongoing CDQ fisheries. Given that the individual processor is economically impacted by each ton accounted for, the determination of a total catch figure has been contentious. In effect, under the current system the CDPs are unable to manage their harvest without the direct NMFS determination of total catch.

Experience with management of all groundfish fisheries has shown that there are discrepancies between vessel and observer estimates of total catch (Berger, 1993 in press). In most cases of discrepancy, observer estimates of total catch are greater than the vessels estimates. For example, in the 1991 open access pollock fishery processors reported 20 percent less total pollock harvest than did observers. The discrepancy between observer and processor reports is probably greater than that reported by Berger because observers accepted processor estimates of total catch for the 40 percent of the catcher/processor harvest that was not sampled.

The accuracy of either observer estimates or processor estimates of total catch cannot be absolutely established unless estimates made using current methods can be compared against actual total catch as measured by a scale or some other method of comparable accuracy. However, given that the observer data has been shown to be a systematically higher estimate of catch they have been selected in CDQ fisheries, and in many of the open-access fisheries, as the best approximation of catch.

Total catch estimation in the 1992 CDQ fisheries was done in the same manner as in the open access pollock fisheries utilizing the "best blend" data system. This system blends the daily observer report of total catch and sample data with the respective processor's daily production report (DPR) of total production and discard. If the summation of total catch from the DPRs was within twenty percent (ten percent over or ten percent under) of the observer reports, the DPR's were used. Otherwise, the observer estimate of total catch was used. However, if the observer report was over twenty percent less than the DPR, the DPR would be selected under the assumption the observer report was incomplete. Under this system, observer data were selected for 19 of the 32 total processor reports in the 1992 fishery.

Several problem areas in this data approach were identified in the 1992 fishery necessitating changes which were implemented in the 1993 "A" season. Specifically;

1. Observers were instructed to obtain their estimates of total catch for sampled hauls by volumetric estimations independent of the processor's estimate.

2. Observers were instructed to increase the percentage of hauls that they estimated at the expense of some of their other duties.

3. Average product recovery rates (PRRs) were adjusted for two major product types; the mince PRR was adjusted down from 34 percent to 15 percent; the skinless/boneless PRR was adjusted down from 22 percent to 13 percent.

4. The blend criteria for selection between observer data and production data was changed so that the higher of the two estimates was selected unless the processor provided data to support a different PRR for their reported product.

Given these changes, the observer data have taken an increased role in the 1993 "A" season CDQ fishery. Observer reports were used for total catch estimation for 14 of 15 processor reports. However, several problems continue to exist in the observer estimation of catch. First, on many processors, observers do not have adequate tools to make independent volumetric estimates of total catch. Second, one observer cannot independently estimate the total weight all catches.

Each processor is different and observer catch estimation and sampling procedures must be adjusted to the operational constraints of the particular processor whether onshore or at-sea. Observers attempt to make volumetric estimates of the total catch either by estimating the size of the codend or by the volume of fish placed in receiving bins prior to sorting or discard. A standard density factory of 0.93 is applied to the volume of the sampled codend or bin to estimate the weight of pollock.[2] Estimating the size of the codend is the least desirable method to make a volumetric estimate of total catch because there is so much potential for error in determining the size and shape of the codend. NMFS believes that fish holding bins of known dimensions offer a much better alternative for making volumetric estimates, however, many of the processors participating the in the CDQ fishery do not have bins that are accessible to the observer nor does the observer know the capacity of each bin. Thus, the equipment in many processing plants is not adequate for an observer to make an independent bin volume estimate of total catch.

If the observers are provided adequate tools to estimate total catch, the problem remains that a single observer is insufficient to independently estimate and obtain needed species composition data. One observer cannot monitor all the activities of the processor and, in the absence of the observer, processor records must be relied upon for total catch estimates. In the 1992 and 1993 CDQ fisheries, there were discrepancies between observer and processor reports of total catch, and alleged attempts to influence the observers estimation methods.

Not only is there a potential problem in accepting processor estimates of total catch while the observer is not able to sample, but assuming that the species composition from the sampled portion of the harvest applies to the unsampled portion of the harvest may result in misreporting of harvest. Although catch sampling may provide an adequate estimate of the species composition of the harvest

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[2]In prior years, observers applied density factors for an individual processor based on sampling of their catch. The 1993 standard density factor may be adjusted if observer data indicate that it is not appropriate.

for the purposes of quota monitoring in the open access fishery, difficulties may occur in the CDQ fisheries where more accurate accounting of each processor's total catch is necessary. For example, in the 1993 pollock "A" season CDQ fishery a haul made while the observer was not sampling contained 30 mt of Pacific cod. This proportion of cod was not found in the hauls that were sampled by the observer so what was reported by the vessel as cod was reported by the observer as pollock and counted against the processor's pollock allocation. Conversely, an observer sampling a haul with a high bycatch of non-pollock species would have that data extrapolated in such a way as to underestimate the total pollock catch.

Regulatory action to support improved measurement of total catch weight is proposed because the current fishery has inadequate observer coverage and inadequate equipment aboard processing vessels for either the observer or the vessel operator to estimate total harvest. As long as there are no intentional attempts to under-report harvest, then it is in the best interest of both the management agency and the CDQ participants to have the most accurate estimates of total catch. These estimates must be made following established procedures with a minimum of error. Consistent procedures for catch estimation would be much more likely if all the processors were similarly equipped and if observers independently estimated the weight of each haul. Estimating total catch using certified bins or scales will give the observers better tools for estimating total catch. Their estimates will be more defensible and neither NMFS nor the processor will be dependent on uncertain catch estimation methods.

1.3 Alternatives Considered

1.3.1 Alternative 1: No Action

The pollock CDQ fisheries will continue to be managed with one observer and no requirements for processors to provide specific equipment to improve total catch estimation.

1.3.2 Alternative 2: Two observers and certified bins

This alternative will require all processors participating in the pollock CDQ fisheries to have two observers In addition, all processors must provide, at a minimum, certified receiving bins accessible to observers for use in volumetric estimates of total catch. Specifically,

(1) Each processor must have one or more receiving bins in which fish catches are placed prior to sorting operations for purposes of determining total removals.

(2) Bin volumes must be accurately measured and permanently marked with 10-centimeter increments for purposes of allowing NMFS certified observers and authorized officers to measure the volume of fish in a bin at any particular time.

(3) Bin volumes and marks must be determined by an independent party recognized by Regional Director as being a licensed agent capable of performing such determinations.

(4) Bins must be well lighted and visually accessible to a NMFS certified observer or authorized officer for purposes of obtaining measurements; and

(5) Observers must be allowed to take volume measurements prior to changes in amounts of fish in the bins, or if bins sensors are used, such sensors must be calibrated according to procedures specified by the Regional Director, and observers must be provided access to bin sensor output.

1.3.3 Alternative 3: Two observers and certified scales

This alternative will require all processors participating in the pollock CDQ fisheries to have two observers. In addition, all processors must provide certified, secure and tamper-proof scales to weigh all fish prior to sorting and discard. Observers must be allowed access to the scales and must be able to periodically verify the accuracy of the scales.

1.4 The 1992 and 1993 "A" season Pollock CDQ Fisheries

The allotted "CDQ reserve" is assigned annually to specific Western Alaska community groups on the basis of approved Community Development Plans (CDP) which specify the fishing companies or vessels which will harvest the CDQs for the successful applicants. The following organizations filed CDPs and received an allocation of the pollock CDQ reserve in 1992 and 1993:

APICDA	Aleutian Pribilof Island Community Development Assn.
BBEDC	Bristol Bay Economic Development Corporation
CBSFA	Central Bering Sea Fishermans Association
CVFC	Coastal Villages Fishing Cooperative
NSEDC	Norton Sound Economic Development Corporation
YDFDA	Yukon Delta Fisheries Development Assn.

Processors contracted with the CDQ recipient organizations to harvest and process pollock under the CDQ by either buying the fish outright or through a profit sharing percentage arrangement based on the earnings from the fishery, or a combination of the two.

Tables 1 and 2 summarize the distribution of the 1992 and 1993 pollock CDQ reserve by organization. The pollock CDQ reserve in both 1992 and 1993 totaled 101,445 mt. The 1992 harvest occurred from December 3 through 31 with 19 catcher/processors trawlers, one mothership, one floating processor and one shoreplant harvesting 97,286 mt of pollock. Effort was higher than expected for future pollock CDQ fisheries because participants had to harvest the entire quota in less than one month.

Eleven catcher/processor trawl vessels and one mothership participated in the 1993 pollock "A" season CDQ fisheries. Fishing effectively started on February 22 after the offshore open access pollock "A" season was closed. Approximately 43,797 mt of pollock was harvested through the "A" season fishery.

Tables 3 and 4 summarize the estimated gross wholesale value of processed pollock products from the 1992 and 1993 "A" season CDQ fisheries. The prices used to estimate value are based on average 1992 prices for all product forms except surimi, which was adjusted down from an average of $1.51/lb in 1992 to $0.90/lb in 1993. The estimated value of the CDQ fisheries was about $44 million in 1992 ($447/ton) and $34 million for the 1993 "A" season ($777/ton).

CDQ recipients were estimated to have received about $20 million in compensation from the fishing companies who harvested and processed the 1992 pollock CDQ (Parker, pers. comm. 4/6/93). This compensation averaged about $200 per ton of pollock. Although the financial arrangements between CDQ recipients and processors varied, the return to the CDQ recipients was approximately equal to the ex-vessel value of the harvest at $0.09/lb.

Table 1. Distribution of the 1992 pollock CDQ reserve by organization.

Organization	Number of Processors	Percent of CDQ (%)	Quantity of CDQ (mt)
APICDA	5	18	18,260
BBEDC	6	20	20,289
CBSFA	4	10	10,144
CVFC	6	27	27,390
NSEDC	5	20	20,289
YDFDA	1	5	5,073
Total	22 1/		101,445

Table 2. Distribution of the 1993 pollock CDQ reserve by organization.

			Assignment of pollock CDQ by area (mt)				
Organ-ization	Number Process.	Percent of CDQ	BS "A" Season	BS Post "A" Sea.	Aleut. Islands	Bogo-slof 2/	Total
APICDA	3	18	7,897	9,653	696	14	18,260
BBEDC	3	20	8,775	10,725	774	15	20,289
CBSFA	3	10	4,388	5,361	387	8	10,144
CVFC	3	27	11,846	14,479	1,045	20	27,390
NSEDC	2	20	8,775	10,725	774	15	20,289
YDFDA	1	5	2,194	2,681	194	4	5,073
Total	12 1/	100	43,875	53,625	3,870	75	101,445

1/ Some processors operated for more than one CDP so the total number of processors participating in the CDQ fishery is not the sum of the processors for each CDP.

2/ Bogoslof is closed to directed fishing in 1993.

Table 3. Estimated gross wholesale value of pollock products in 1992.

	Price ($/lb)[1/]	Product Weight (mt)	Gross Value ($1,000)	%
Fillets	1.20	7,631	20,192	46
Minced	0.70	1,200	1,852	4
Surimi	0.90	8,879	17,620	41
Roe	5.32	185	2,170	5
Meal	0.23	3,338	1,693	4
Total			43,527	100

Table 4. Estimated gross wholesale value of pollock products in 1993 A season.

	Price ($/lb)[1/]	Product Weight (mt)	Gross Value ($1,000)	%
Fillets	1.20	2,072	5,483	16
Minced	0.70	531	820	2
Surimi	0.90	2,827	5,610	17
Roe	5.32	1,845	21,643	64
Meal	0.23	919	466	1
Total			37,825	100

1/ All prices except surimi represent averages for the entire 1992 season. They are based on information supplied on annual processor reports of quantity and value of processed products.

2.0 NEPA Requirements: Environmental Impacts of the Alternatives

An environmental assessment (EA) is required by the National Environmental Policy Act of 1969 (NEPA) to determine whether the action considered will result in significant impact on the human environment. The environmental analysis in the EA provides the basis for this determination and must analyze the intensity or severity of the impact of an action and the significance of an action with respect to society as a whole, the affected region and interests, and the locality. If the action is determined not to be significant based on an analysis of relevant considerations, the EA and resulting finding of no significant impact (FONSI) would be the final environmental documents required by NEPA. An environmental impact statement (EIS) must be prepared if the proposed action may cause a significant impact on the quality of the human environment.

An EA must include a brief discussion of the need for the proposal, the alternatives considered, the environmental impacts of the proposed action and the alternatives, and a list of document preparers. The purpose and alternatives were discussed in Sections 1.2 and 1.3, and the list of preparers is in Section 7. This section contains the discussion of the environmental impacts of the alternatives including impacts on threatened and endangered species and marine mammals.

2.1 Environmental Impacts of the Alternatives

The environmental impacts generally associated with fishery management actions are effects resulting from 1) overharvest of fish stocks which might involve changes in predator-prey relationships among invertebrates and vertebrates, including marine mammals and birds, 2) physical changes as a direct result of fishing practices affecting the sea bed, and 3) nutrient changes due to fish processing and discarding fish wastes into the sea. A summary of the effects of the 1993 groundfish total allowable catch amounts on the biological environment and associated impacts on marine mammals, seabirds, and other threatened or endangered species are discussed in the final environmental assessment for the 1993 groundfish total allowable catch specifications.

The pollock CDQ fishery harvests approximately 7.5 percent of the BSAI pollock TAC annually. The environmental impacts of the CDQ fishery as a whole was addressed in the environmental assessments prepared for Amendment 18 to the BSAI FMP and for regulations implementing the CDQ program in 1992. Although this proposed regulatory action does not change the total allowable harvest in the CDQ fisheries, the alternatives address the methods by which total removals are measured and, therefore, may have some impact on actual total catch.

2.1.1 Alternative 1: No action

The problem that NMFS proposes to address with this regulatory action is primarily the allocation of the CDQ harvest among individual processors and the management of individual CDP quotas in a relatively fast paced fishery. The CDQ fisheries are monitored on a daily basis, with daily reports required from both observers and processors. NMFS believes that the status quo will lead to the continuation of problems with inadequate quota monitoring. It will be difficult to manage the individual CDP quotas without additional observer coverage and adequate tools for independent catch estimation.

2.1.2 Alternative 2: Two observers and certified bins

This alternative will provide two observers so that an independent estimate of total catch can be made for all pollock harvested in the CDQ fisheries. In addition certified, accessible and marked receiving bins will provide the observer with the minimum tools necessary to consistently estimate total catch weight. More accurate accounting of total catch will improve NMFS's ability to keep pollock CDQ harvests within the established limits and will enable the CDP's to monitor their quotas with less NMFS involvement. In addition, increased observer coverage will allow for better accounting of the harvest of other groundfish species and prohibited species such as halibut, salmon, crab and herring.

1.2.3 Alternative 3: Two observers and certified scales

This alternative provides all of the benefits of Alternative 2 except that scale weight of total catch is considered more accurate than total catch estimates based on volumetrics.

2.2 Impacts on Threatened or Endangered Species and on the Alaska Coastal Zone

None of the alternatives are expected to have any adverse effect on endangered or threatened species or their habitat. Thus, formal consultation under Section 7 of the Endangered Species Act is not required.

These alternatives are not expected to result in any action or impact that is not consistent with the Alaska Coastal Management Program within the guidelines of Section 307(c)(1) of the Coastal Zone Management Act of 1972 and its implementing regulations.

2.3 Conclusions or Findings of No Significant Impact

For the reasons discussed above, neither implementation of the proposed action nor any of the alternatives to that action would significantly affect the quality of the human environment, and the preparation of an environmental impact statement on the preferred action is not required by Section 102(2)(c) of the National Environmental Policy Act or its implementing regulations.

3.0 Regulatory Impact Review: Economic Impacts of the Alternatives

A review of the social and economic impacts of the alternatives provides information about those industry members affected by the proposed action and the economic gains or losses they are likely to experience as a result of the action. This section also addresses the requirements of both E.O. 12291 and the Regulatory Flexibility Act to provide adequate information to determine whether an action is "major" under E.O. 12291 or will result in "significant" impacts on small entities under the RFA.

Executive Order 12291 applies to the issuance of new rules, the review of existing rules, and the development of legislative proposals concerning regulations. The EO requires that:

> (1) regulatory objectives and priorities be established with the aim of maximizing aggregate net benefits to society, taking into account the condition of the particular industries affected by the regulations, the condition of the national economy, and other actions contemplated for the future;
>
> (2) decisions be based on adequate information concerning the need for and consequences of the proposed rules;
>
> (3) the chosen regulatory approach or alternative be the one with the least net cost to society, if practicable; and
>
> (4) regulatory action should not be undertaken unless the potential benefits outweigh the potential costs to society.

A description of the purpose and need for the action and alternatives considered to address these problems were described in Sections 1.2 and 1.3. The social and economic impacts of these alternatives are discussed in this section.

E.O. 12291 also requires the Secretary of Commerce to determine whether the impact of a regulation is "major" and, if so, complete a Regulatory Impact Analysis (RIA) of the alternatives. A major regulation is one that is likely to result in: (1) an annual effect on the economy of $100 million or more; (2) a major increase in costs or prices for consumers, individual industries, Federal, State, or

local government agencies, or geographic regions; or (3) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of U.S based enterprises to compete with foreign based enterprises in domestic or export markets.

3.1 Alternative 1: Status Quo

The status quo allows the pollock CDQ fisheries to continue without adequate observer coverage and equipment for measuring total catch. The monitoring of individual CDP quotas will continue to be a problem. NMFS will have to rely on vessel reports of total catch for at least 25 percent to 30 percent of the harvest. Consistent and reliable estimates of the portion of the catch sampled by the observers will be difficult to obtain, highly variable product recovery rates will be used to estimate a portion of the harvest, and a single observer will continue to be in the difficult position of determining the fishing activity of the CDQ participants.

The current catch estimation process can serve to either benefit or penalize processors participating in the CDQ fisheries. If individual processors are experiencing product recovery rates that are better than that assumed by NMFS they will be held responsible for more harvest than they actually made. This is a cost to industry because they must forego catch that they otherwise would have been able to harvest. Depending on the financial arrangement between the CDP organization, this situation may also result in reduced returns to the CDPs. One processor has already installed an in-line flow scale aboard its vessel. The processor's product recovery rates were better than those assumed by NMFS during the 1992 CDQ fishery. NMFS agreed to accept total catch weight estimates from the scale rather than using product recovery rates and this vessel was able to harvest more pollock than back-calculation from the product recovery rates would have allowed.

One the other hand, uncertainty in the current catch estimation process can be to the advantage of the processors if NMFS is not accurately accounting for all of the fish harvested. Discrepancies between observer and processor estimates of total harvest is what has led to adoption of the blend system of catch accounting in the open access and CDQ fisheries. The number of instances where observer estimates are higher than processor estimates indicate that NMFS may not have been fully accounting for total catches. Because processors are fishing on individual CDP quotas, more incentive exists to under-report total catch than may exist in the open access fishery. If processors do not fully account for pollock harvests in the CDQ fishery, not only are they able to catch more than their quota but, depending on the financial arrangements with the CDPs, they may not even have to compensate the CDP for the value of the additional fish they harvest. As shown in Tables 3 and 4, the gross wholesale value of pollock harvested in the 1992 and 1993 CDQ fisheries was between $450 and $470 per ton. Therefore, the value of even ten percent under-reporting of total harvest ranges from $4.5 million to $7.8 million.

3.2 Alternative 2: Two observers and certified bins

Two observers on at-sea processing vessels will allow sampling of each pollock haul for total weight and catch composition. In addition, the additional observer can verify procedures followed aboard the vessel and help prevent the pressure that is placed on a single observer. Certified bins to improve volumetric estimates of total catch provide observers with the minimum tools necessary to provide adequate estimates of total catch.

In early 1992, staff of the NMFS Observer Program reviewed reports on 66 catcher/processor trawl vessels that had been harvesting pollock in the BSAI. Forty-five of these vessels had bins that would be suitable for use in volumetric estimates of total catch weight if the bins were measured and properly marked. An additional 17 of the vessels had bins that were inaccessible to observers. In

this case, more extensive modifications may have to be done before these bins could be used for volumetric estimates of total catch. In addition to the necessary modifications of the bins, there were several operational problems mentioned by observers that also must be addressed in order to make volumetric estimates. They include filling the bins with fish too fast for the observer to estimate bin volumes, dumping more fish in a partially full bin before the observer has time to record volumes, adding an undetermined amount of water to the bin, and fish not being level in the bin so that a volume can be determined.

Four catcher/processor trawl vessels had their receiving bins measured and volumes calculated prior to the 1993 season. The estimated cost was $4,000 per vessel. Certification of the volumes and witnessing of the marks by an independent third party costs approximately $500 per vessel.[3] However, reports made by observers using these bins during the 1993 "A" season indicate that several of them continue to have problems with accessibility. Therefore, additional modifications would probably have to be made to the bins to meet the standards for Alternative 2.

There are a wide variety of processing vessels and no two have exactly the same on-deck or factory layout. Additional costs would be incurred if the processor had to add bins, modify existing bins or the area around the bins to make them accessible to observers. Processors using recirculating sea water (RSW) tanks have a particular problem. It is virtually impossible to estimate the volume of fish contained in these tanks unless some kind of electronic bin sensor or hydroacoustic device is developed. At least one of the processors currently participating in the CDQ fishery is using an RSW tank. Methods for estimating total weight from RSW tanks could be evaluated on a case-by-case basis or processors could choose not to use these tanks for holding fish harvested during the CDQ fisheries.

Using the processors participating in the 1993 pollock CDQ fisheries as an example, an estimate of the minimum cost per vessel and for the pollock CDQ fishery as a whole of placing two observers on each processing vessel and requiring certified bins for estimation of total catch weight can be made. Additional costs due to crew reductions to accommodate an additional observer or costs necessary to meet certified bin requirements are difficult to estimate and are not included in this estimate. Vessel modifications would be a one-time expense. Additional observer coverage and bin certification will be annual costs. Following are the assumptions used to estimate cost as well as the per vessel and fishery estimates:

Estimated Costs of Two Observers and Certified Bins

Total number of processing vessels in 1993 CDQ fishery:	12
Average cost of an observer:	$183 per day
Estimated number of days per vessel in 1993 CDQ fishery[4]:	36 days

[3]Two of the vessels had one bin, one vessel had two bins and one vessel had three bins.

[4] The projected number of days each processing vessel would fish in the 1993 CDQ fishery was estimated by extrapolating from fishing effort during the 1993 A-season. Twelve vessels fished for a total of 196 days to harvest 43,788 mt of pollock. There are 53,625 mt of pollock CDQ remaining for 1993. At the same catch rate as experienced during the A-season, this amount will take about 240 fishing days. Therefore, the total number of fishing days in 1993 is estimated to be 436 and the average per vessel is 36 days.

Cost per vessel:

Minimum cost of second observer	$6,600
Minimum cost of certified bin per vessel	$4,000
Total cost in initial year	$10,600

Cost for all CDQ participants:

Minimum cost of second observer	$ 79,200
Minimum cost of certified bin per vessel	$ 48,000
Total cost in initial year	$127,200

The average cost in the initial year, assuming effort levels similar to 1993, is about $10,600 per processor or $127,200 for a fleet of twelve processing vessels. Using the value of the 1992 and 1993 "A" season as a guideline, the projected gross wholesale value of the 1993 pollock CDQ fishery could be about $58 million or an average of about $4.8 million per processor.[5]

The benefits of improved catch accounting in the pollock CDQ fisheries are difficult to quantify. The problem addressed by this regulatory action is one of adequate quota monitoring. The pollock CDQ fisheries provide incentives for individual processors to under-report harvests and the current system of catch accounting provides the opportunities for under-reporting. A single observer is responsible for determining, to a large degree, the pollock harvest of individual processors. The benefits of having two observers and better tools to estimate total catch are that the chance of overharvest of the pollock CDQ is reduced. This does not translate into a direct economic benefit to the nation except that management within quotas improves the chance that pollock stocks and those that rely upon them are not adversely impacted in the future.

3.3 Alternative 3: Two observers and certified scales

Scales offer the potential for additional accuracy in total catch estimation. One vessel in the BSAI groundfish fleet has a Marel Flow Scale which is installed on the conveyor line and automatically weighs fish as they pass over the scale. The flow scale was specifically designed for at-sea processing and contains a motion compensation device. The manufacturer claims that the scale has an average accuracy of ±0.5%. However, this scale does not currently produce an independent, tamper-proof record of weight such as a paper readout or computerized record although both of features are reportedly available. The estimated cost of this particular type of scale ranges from $40,000 to $50,000. The Marel scale could be modified to produce a record of scale weights that could be sent either to a printer or a computer for approximately $1,100. Installation costs for the scale will vary from processor to processor depending on the factory layout and the extent of changes that need to be made to accommodate the scale. Although there doesn't appear to be equally accurate alternatives to this particular scale at this time, Marel marketing personnel have indicated that it may be possible to offer the components of the flow scale at a significantly lower price than is currently listed.

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[5]The estimated value of the 1993 A-season was $34 million. Applying the average value of the 1992 pollock CDQ fishery ($447/ton) to the B-season quota (53,625 mt) equals about $24 million.

A less expensive conveyer scale that does not contain a motion compensation device is currently being field tested aboard a catcher vessel delivering pollock to Dutch Harbor. This scale is installed as components to the existing conveyor line and ranges in price from $7,000 to $10,000. Tests comparing the at-sea scale weight with shore plant delivery weights found that, on average, the weight determined with the onboard scale was approximately 4.75 percent above the shore plant weight in 1992 and 4.99 percent above the shore plant weight in 1993. There was, however, considerable variation in this difference among the trips, particularly in 1992. This variation may have been due to the impact of weather conditions on the accuracy of the scale or on other differences in the handling of the fish. These sources of variation would have to be explored further before a scale without motion compensation could be used on a wider basis.

Although scales appear to provide a more accurate estimate of total catch, use of the technology for this purpose is limited to two vessels at this time. The standards for scale measurement of total weight have not been established by NMFS and there appears to be quite a wide range of technology available. It is difficult to estimate the costs of purchasing the scales, installing them, and maintaining their integrity. In addition, procedures for providing an accurate record of total weight from the scales in the absence of an observer have not been established. Although scales aboard processing vessels offer a better tool for total catch estimation, until security issues can be resolved, two observers will also be necessary with this alternative to assure an accurate accounting of all harvests in the pollock CDQ fisheries.

Following are cost estimates for requiring two observers and placing in-line flow scales on the twelve processing vessels participating in the 1993 pollock CDQ fishery. Again, purchase and installation of the scale should be a one-time cost. Maintenance and certification of the scale and additional observer coverage will be annual costs.

Estimated Costs of Two Observers and Scales	
Total number of processing vessels in 1993 CDQ fishery	12
Average cost of an observer:	$183 per day
Estimated number of days per vessel in 1993 CDQ fishery:	36 days
Cost per vessel:	
Minimum cost of second observer	$ 6,600
Minimum price for one scale per vessel	$40,000
Total cost in initial year	$46,600
Cost for all CDQ participants:	
Minimum cost of second observer	$ 79,200
Minimum price for one scale per vessel	$480,000
Total cost in initial year	$559,200

The average cost in the initial year, assuming effort levels similar to 1993, is about $46,600 per processor or $559,200 for a fleet of twelve processing vessels. The projected gross wholesale value

of the 1993 pollock CDQ fishery could be about $58 million or an average of about $4.8 million per processor.

Again, the benefits of more accurate catch accounting are difficult to quantify. Scales probably offer an improvement in accuracy over volumetric estimates, but since the accuracy of volumetrics has not yet been determined, it is not clear whether the improvement is enough to justify the additional expenditure.

3.4 Reporting Costs

Currently, NMFS does not plan to change processor reporting requirements even if total catch estimation for quota monitoring is based primarily on observer's independent estimates of total catch. Weekly production reports will continue to be used to collect information on processed product forms and processor estimates of total catch. The cost of an additional observer is not included under the definition of reporting costs nor are the costs associated with annual certification of bins or scales or the repair and recalibration costs of scales.

3.5 Administrative, Enforcement and Information Costs

Administrative costs may be reduced under Alternatives 2 and 3 if NMFS does not have to continue the intensive daily monitoring of the pollock CDQ fisheries that was necessary in the 1992 and 1993 fisheries. Although more accurate observer estimates of total catch may improve NMFS's ability to manage CDQ, the high level of interaction with processors will probably continue as will the challenges to observer methods and calculations. Additional observers and observer reports will increase the responsibilities of the NMFS Observer Program. Finally, increasing observer responsibilities for total catch estimation necessarily reduces the time available for other monitoring or research activities. Enforcement and information costs to the industry probably will not change significantly as a result of any alternative suggested in this proposal. Processors compliance with regulations about two observers or specific equipment such as certified bins or scales can be verified with little difficulty.

3.6 Summary of Economic Impacts: Distribution of Costs and Benefits

Two alternatives have been presented to improve the observers ability to independently estimate total catch weight for processors participating in the pollock CDQ fisheries. There are: (1) require two observers and certified bins for volumetric estimates, and (2) require two observers and scales. Currently, the pollock CDQ fisheries are difficult to manage because the quota is divided up among several CDQ recipient organizations and must be managed in a manner similar to an individual fishing quota. The benefits of improved catch estimation are difficult to quantify in dollar terms because they are primarily a more accurate accounting of total catch and better quota management by NMFS. The nation will not see a measurable difference in harvest or production from this fishery as a result of better catch estimation. However, more accurate catch accounting improves the possibility that the quota will not be exceeded for individual CDQ recipients and for the fishery as a whole.

The costs of improved catch estimation for these processors are also difficult to estimate because each processor may require a different degree of modification in order to meet the specifications. A survey of 66 catcher/processor trawl vessels indicated that 45 of these vessels had bins that would be suitable for use in volumetric estimates of total catch weight. The volumes of these bins need to be certified and properly marked on all four sides of the inside of the bin. An additional 17 of the vessels had bins onboard, however, these bins were inaccessible to observers and would probably require more extensive modifications.

Using the processors participating in the 1993 pollock CDQ fisheries as an example, an estimate of the minimum cost per vessel and for the pollock CDQ fishery as a whole of placing two observers on each processing vessel and requiring certified bins for estimation of total catch weight can be made. The average cost in the initial year, assuming effort levels similar to 1993, is about $10,600 per processor or $127,200 for a fleet of twelve processing vessels.

Alternative 3 specifies two observers and a certified scale for more accurate estimation of total catch weight. The scale used as an example is an inline flow scale with a motion compensation device that is installed on the conveyor line and automatically weighs fish as they pass over the scale. The estimated cost of this particular type of scale ranges from $40,000 to $50,000. With the additional observer, the cost of this alternative in the initial year, is about $46,600 per processor or $559,200 for a fleet of twelve processing vessels. Although scales offer the possibility of more accurate estimates of total catch weight than do volumetrics, this scale does not currently produce an independent, tamper-proof record of weight such as a paper readout or computerized record although both of features are reportedly available.

Information about operating costs and net revenues from the pollock CDQ fisheries would be necessary to judge the relative burden on the industry of requiring an additional observer and either certified bins or scales. This information is not available to NMFS or the Council. However, there are twelve processors participating in the 1993 pollock CDQ fisheries. The projected gross wholesale value of this fishery could be about $58 million or an average of about $4.8 million per processor.

4.0 Initial Regulatory Flexibility Analysis

The objective of the Regulatory Flexibility Act is to require consideration of the capacity of those affected by regulations to bear the direct and indirect costs of regulation. If an action will have a significant impact on a substantial number of small entities an Initial Regulatory Flexibility Analysis (IRFA) must be prepared to identify the need for the action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of net benefits.

NMFS has defined all fish-harvesting or hatchery businesses that are independently owned and operated, not dominant in their field of operation, with annual receipts not in excess of $2,000,000 as small businesses. In addition, seafood processors with 500 employees or less, wholesale industry members with 100 employees or less, not-for-profit enterprises, and government jurisdictions with a population of 50,000 or less are considered small entities. A "substantial number" of small entities would generally be 20% of the total universe of small entities affected by the regulation. A regulation would have a "significant impact" on these small entities if it resulted in a reduction in annual gross revenues by more than 5 percent, annual compliance costs that increased total costs of production by more than 5 percent, or compliance costs for small entities that are at least 10 percent higher than compliance costs as a percent of sales for large entities.

If an action is determined to affect a substantial number of small entities, the analysis must include:

(1) description and estimate of the number of small entities and total number of entities in a particular affected sector, and total number of small entities affected; and

(2) analysis of economic impact on small entities, including direct and indirect compliance costs, burden of completing paperwork or recordkeeping requirements, effect on the competitive position of small entities, effect on the small entity's cashflow and liquidity, and ability of small entities to remain in the market.

4.1 Economic Impact on Small Entities

The definition of a small entity includes harvesting vessels with annual gross receipts less than $2,000,000 or seafood processors with less than 500 employees. Catcher/processor trawl vessels are both harvesting vessels and seafood processors so it is unclear which category the fit into. There are approximately 70 processors currently participating in the BSAI pollock fisheries the majority of whom are catcher/processors with annual gross receipts over $2,000,000 but with less than 500 employees. Twelve of these 70 processors are participating in the 1993 pollock CDQ fisheries.

These proposed regulations will affect all processors who wish to participate in pollock CDQ fisheries in the future. The regulations do not affect participation by these processors in the open access fisheries nor will they affect catcher vessels who deliver pollock to shore plants or motherships during the CDQ fisheries. However, participation by processors in the pollock CDQ fisheries is voluntary and does not preclude them from participation in the open access fisheries where they earn the majority of their annual income. Because processors will voluntarily comply with these proposed regulations in order to participate in the CDQ fisheries, it is presumed that the regulations will not have a significant impact on a substantial number of small entities.

5.0 Summary and Conclusions

The Western Alaska Community Development Quota (CDQ) for pollock is allocated to organizations whose Community Development Plans (CDP) have been approved by the Governor of Alaska and the Secretary of Commerce. Each CDP is allowed to harvest a specific portion of the quota. In contrast to the open access groundfish fisheries, the CDQ fisheries have an allocation to an individual group which further assigns it to contracted processors. Increased accuracy of catch estimation is needed because each processor is accountable to the CDP for their catch. Management experience has shown that the methods for total catch estimation currently used is not adequate to accurately monitor the harvest of an individual processor.

This proposed regulatory action would require two observers and improved equipment so that observers can make independent estimates of total catch weight. In addition to the status quo, two alternatives are analyzed. Alternative 2 requires two observers and certified bins for volumetric estimates of total catch weight and Alternative 3 requires two observers and scales for more accurate estimates of total catch weight.

The pollock CDQ fishery harvests approximately 7.5 percent of the BSAI pollock TAC annually. The environmental impacts of the CDQ fishery as a whole was addressed in the environmental assessments prepared for Amendment 18 to the BSAI FMP and for regulations implementing the CDQ program in 1992. Although this proposed regulatory action does not change the total allowable harvest in the CDQ fisheries, the alternatives address the methods by which total removals are measured and, therefore, may have some impact on total catch.

More accurate accounting of total catch will improve NMFS's ability to keep pollock CDQ harvests within the established limits and will enable the CDP's to monitor their quotas with limited NMFS involvement. In addition, increased observer coverage will allow for better accounting of the harvest of other groundfish species and prohibited species such as halibut, salmon, crab and herring.

The benefits of improved catch estimation are difficult to quantify in dollar terms because they are primarily a more accurate accounting of total catch and better quota management by NMFS. The benefits of having two observers and better tools to estimate total catch are that the chance of overharvest of the pollock CDQ is reduced. This does not translate into a direct economic benefit

to the nation except that management within quotas improves the chance that pollock stocks and those that rely upon them are not adversely impacted in the future.

The costs of improved catch estimation for these processors are also difficult to estimate because each processor may require a different degree of modification in order to meet the specifications. A survey of 66 catcher/processor trawl vessels indicated that 45 of these vessels had bins that would be suitable for use in volumetric estimates of total catch weight. The volumes of these bins need to be certified and properly marked on all four sides of the inside of the bin. An additional 17 of the vessels had bins onboard, however, these bins were inaccessible to observers and would probably require more extensive modifications.

Based on limited information about the cost of an additional observer and for certifying and marking bins, the average cost of Alternative 2 in the initial year, is about $10,600 per processor or $127,200 for a fleet of twelve processing vessels.
The cost of Alternative 3 (two observers and scales) in the initial year, is about $46,600 per processor or $559,200 for a fleet of twelve processing vessels. Although scales offer the possibility of more accurate estimates of total catch weight than do volumetrics, two observers would be necessary because this scale does not currently produce an independent, tamper-proof record of weight such as a paper readout or computerized record although both of features are reportedly available.

Information about operating costs and net revenues from the pollock CDQ fisheries would be necessary to judge the relative burden on the industry of requiring an additional observer and either certified bins or scales. This information is not available to NMFS or the Council. However, there are twelve processors participating in the 1993 pollock CDQ fisheries. The projected gross wholesale value of this fishery could be about $58 million or an average of about $4.8 million per processor.

6.0 References

Berger, J.D. 1993 (in press). "Comparisons Between Observed and Reported Catches in the Bering Sea and the Gulf of Alaska, 1990-91". NMFS Alaska Science Center, Seattle, Washington. 85 pp.

7.0 Agencies and Individuals Consulted

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8.0 List of Preparers

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AGENDA D-3(c)(1)
APRIL 1993

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April 12, 1993

North Pacific Fishery Management
Council
P.O. Box 103136
Anchorage,
AK 99510

VIA FACSIMILE AND US MAIL

Attn: Clarence Pautzke

Ref: Pollock Roe Production Data

Clarence
~~Gentlemen~~:

Please find attached a table representing Westward's pollock roe production experience for the 1992 and 1993 "A" seasons. The 1992 "A" season was Westward's first.

Please note the contrasts between 1992 and 1993. In our opinion the 1993 "A" season, from the perspective of roe recovery, size, maturity and etc. represents an anomaly, due in large measure to the apparent dominance of younger year classes in the fishery.

We recommend that you discard the 1993 data as it will seriously distort your analysis. Having discussed this with our fleet, our technicians and others in the industry it is our view that the 1992 data is in fact representative of general recovery and maturity trends found in the winter/spring season. Also, although we have never processed roe bearing pollock from the Bogoslof district, anecdotal information from fishermen and technicians suggest that recovery and maturity timing may be different for this substock. We would urge that you take this into account when using data from years prior to 1992.

Finally, Westward supports the proposal to framework the opening date of the pollock "A" season. This will provide both management and industry the opportunity to remain flexible in reacting to changes in resource conditions.

Please let me know if we can be of further assistance.

Sincerely,

WESTWARD SEAFOODS, INC.

F. Gregory Baker
President

ATTACHMENT

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FM/NPFMC Correspondence
Chrono

FGB/NPFM0412.doc
041293

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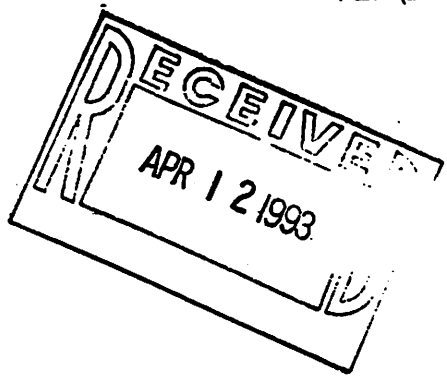


April 8, 1993

Clarence Pautzke, Executive Director
North Pacific Fisheries Management Council
P.O. Box 103136
Anchorage, Alaska 99510

Ref: Framework opening date for the BSAI Pollock A Season.

Dear Mr. Pautzke,

Attached is the information you requested on Pollock Roe recovery and maturation. The statistics on Roe maturation reflect the retained Roe only. We only retain overmature Roe that is in the early stages of overmaturity. Very overmature Roe is discarded.

Alyeska Seafoods, Inc. prefers the status QUE of a January 20th start date. We feel that January 20th works well for most scenarios. We feel the adjustments in the A season starting date for the Shoreside Sector would be minimal, whereas a set starting date is advantageous for crew and supply scheduling.

We therefore would prefer not to have this proposal adopted for the Shoreside Sector.

Sincerely,

Alec W. Brindle
President

AWB/cp

Enclosures

Discussion Paper
BSAI Pollock 'A' Season Framework

Background

At the January 1993 meeting, the Council requested the development of a framework amendment that would allow the opening date for the Bering Sea Aleutian Islands pollock 'A' (roe) season to be set during the September-December annual specifications process. The reason for this request is to provide flexibility in establishing the annual starting date to maximize benefits from the 'A' season pollock harvest. If the pollock fleet reaches the 'A' season pollock TAC prior to the time the value of the pollock roe has reached a peak, then potential revenues from this fishery are foregone. The goal of the proposal is to achieve the optimum utilization of the pollock 'A' season by the U.S. fishing industry, which is consistent with National Standard 1 in the Magnuson Act (Sec. 301).

A complete EA/RIR/IRFA is being prepared as part of the amendment package. Staff had originally planned on completing a draft analysis prior to the April Council meeting. However, due to the number of projects in progress or due for this Council meeting, and the data collection and analysis required, the 'A' Season start date analysis is not complete at this time. The analysis will be ready in time for adequate public review prior to the June Council meeting, and the Council can take final action on this regulatory amendment proposal at that time. This discussion paper reviews the proposal, outlines the analysis and alternatives considered, discusses the methods of analysis, and presents rough results of the work completed to date.

Under present BSAI regulations (675.20(a)(2)(ii)), the TAC in both the Bering Sea and Aleutian Islands subareas is divided into two allowances. The first allowance ('A' season) is available for directed fishing from January 1 until April 15. The second allowance ('B' season) is available for directed fishing from June 1 through the end of the fishing year. Pending approval of a regulatory amendment by the Secretary of Commerce, the 'B' season will begin on August 15, rather than June 1.

Currently, no federal fishery start date is frameworked in regulation or the FMP. Fishery start dates are either explicitly defined in regulations, or if not defined, default to the annual start of the fishing year, January 1. Under Amendment 19 to the BSAI FMP, the Council recommended a delay in all trawl fisheries until January 20, in an attempt to reduce the catch of Chinook salmon bycatch. The pollock 'A' season has begun on January 20th since 1992.

The length of the pollock 'A' season has decreased over the past four years from fifteen weeks down to five (Table 1). This past season the offshore sector exceeded its TAC of 323,213 mt in just 34 days and the inshore sector took its TAC of 174,038 mt in under 50 days. Note the shoreside fleet did not fish until the fourth week of the season due to price negotiations with processors.

Table 1. Length of the BSAI Pollock 'A' Season.

Year	Start Date	Closure Date	Length (weeks)	Length (days)
1990	Jan. 1	April 14	15	104
1991	Jan. 1	Feb. 22	8	53
1992	Jan. 20	March 6	7	47
1993 Offshore	Jan. 20	Feb. 22	5	34
1993 Inshore	Jan. 20	March 24	9	70

Three factors affect the length of the pollock 'A' season: annual TAC, amount of effort, and the amount of pollock TAC the Council apportions to the pollock 'A' season. The Council apportioned 40 percent of the EBS pollock TAC for the 1991 and 1992 seasons, and 45 percent of the TAC for the 1993 season. If the Council were to have apportioned less then 45 percent of the EBS pollock TAC for this past season, the season would have been even shorter. In 1992, the Council recommended a moratorium on vessels entering the crab and groundfish fisheries in the BSAI, thereby reducing the increase in effort. With an effective vessel moratorium, combined with the rather soft market conditions for pollock products, the analysis will assume that effort into the BSAI pollock roe fishery will remain constant at current levels.

Given the shortened pollock 'A' season over the past few years, it is no longer possible to bracket the peak time of roe value with fishing effort. When the Council recommended a fifteen week pollock 'A' season in 1990 (Amendment 14), the analysis supporting this season split assumed that fishing effort would last the entire fifteen week period. There was little concern when the peak in roe value occurred because the fishery would likely occur before, during and after this peak.

Alternatives Considered in the Analysis

Three alternatives are considered, which are as follows.

Alternative 1 Status Quo. The pollock 'A' season would begin on January 20, and end when the pollock 'A' season apportionment was reached.

Alternative 2 The pollock 'A' season start date would be determined annually by the Council during its September-December specifications process. A non-discretionary formula would be used to determine the start date. Inputs to the formula include: estimation of effort (catch rate), recommended ABC and TAC, apportionment of the pollock TAC to the 'A' season, estimated season length, estimated relative year class strengths of the pollock biomass (maturity), and expected changes in harvesting and processing capacity.

Option 1 Consider one start date for the eastern Bering Sea, Bogoslof and Aleutian Islands pollock fisheries.

Option 2 Consider separate start dates for the three BSAI pollock fisheries.

Option 3 Consider separate start dates for the Inshore and Offshore sectors for the pollock 'A' season.

Alternative 3 The pollock 'A' season start date would be determined annually by a NMFS sanctioned test fishery to determine roe condition. NMFS would announce the opening date of the pollock 'A' season x days before the opening. This would be similar to the method used by the Alaska Department of Fishing & Game in its management of Coastal Alaska herring fisheries.

Information and Methods Considered in the Analysis

To assess impacts to the current participants in the BSAI fisheries, information on 1990 through 1993 BSAI pollock fisheries is presented. This includes NMFS estimates of pollock harvests including quantity and value of pollock and products produced from pollock and length of season, and vessel and processor participation. This information defines the characteristics of the pollock-based fishing industry and the trends of this industry over the past four years. Tables 2 and 3 summarize pollock harvests in the BSAI

trawl fisheries in 1991 and 1992 by processor type. Harvest estimates are based on a blend of observer and vessel reports ("blend estimates"). Table 4 summarizes the pollock 'A' season production of roe and retained pollock by week, for 1991 - 1993. Figure 1 presents this weekly production data in a graphic manner. Tables 5 and 6 summarize the estimated gross wholesale value of the 1991 and 1992 pollock harvests in the BSAI by product form. In these two years, the total value of the BSAI harvest was about $900 million. Surimi represented the highest proportion of value followed by roe. Table 7 summarizes the number of vessels and processors participating in the 1992 pollock fisheries in the BSAI. Fifty-four catcher processors, five motherships, 11 shore plants and 123 catcher vessels participated in the 1992 BSAI pollock fishery.

The analysis provides a determination of roe value over the length of the pollock 'A' season for the past four years. Value is a function of quality and recovery rate. Quality is a function of maturity and roe consistency. The Japanese classify roe as either "maku" (mature) or "mazuko" (over mature, or water roe). In addition, roe is classified as "ioko" if it is bruised or cut.

Because little information on roe value over length of a season is available from NMFS, a survey was developed and sent to nine top producers of pollock products, including both shoreside and offshore producers. Information on maturation of roe over the first few months of the year and roe recovery rates for the years 1990 through 1993 was requested. To date only three companies have responded to the survey; therefore, the reliability of the data would be questionable if analyzed at this time. Figure 2 shows the 1990 - 1993 average and range of roe maturation and roe recovery, by week for these three responses. When all surveys are received, we will be able to provide indications from industry what the roe value and roe recovery rates were, by week for the past four seasons.

Combining information on roe value/roe recovery from the industry survey with an estimate of season length, we can determine when to conduct the pollock 'A' season in order to maximize the benefits from this fishery. We can simulate what the change in value would have been for previous years' fisheries by displacing actual effort later into the season when roe value potentially was greater.

Regarding information on biomass estimates, year class strength, and recommended ABCs, the analysis will draw upon the most recent stock assessment of BSAI pollock stocks as presented in the BSAI SAFE document for 1993. Since 1987 the Council has recommended an EBS pollock TAC at or above 1.3 million metric tons. The projected biomass and ABC of EBS pollock through 1996 as presented in the 1993 SAFE pollock chapter indicates an increase in both of these parameters. Another factor affecting roe production and value is the size or age composition of the pollock biomass for a given year. When a relatively large year class recruits to the fishery, roe recovery will decrease due to the high occurrence of immature females. Apparently, this was what happened in 1993, when the large 1989 year class recruited to the fishery. Only 64 percent of female pollock are mature at age 4 (V. Wespestad, pers. comm.). The analysis will review projected year class strengths for the BSAI pollock stocks and the potential impact on roe production. Emphasis will be on the eastern Bering Sea, but consideration will be given to the Aleutian Island and Bogoslof fisheries as well.

Other topics considered in the analysis include: effects on prohibited species catch (salmon, halibut, crab and herring), effects of fishing on spawning pollock stocks, effects on marine mammals and seabirds, effects on other directed trawl fisheries, and effects on the CDQ pollock fisheries. Attached is an outline of the proposed analysis.

BSAI Pollock 'A' Season Framework Outline

1.0 INTRODUCTION
- 1.1 Action Contemplated
- 1.2 Management Background
- 1.3 Purpose of the Document
  - 1.3.1 Environmental Assessment
  - 1.3.2 Regulatory Impact Review and Initial Regulatory Flexibility Analysis
- 1.4 Purpose of and Need for the Proposed Action
- 1.5 Alternatives

2.0 POLLOCK CATCH AND THE POLLOCK FISHERIES
- 2.1 Pollock Catch in the Groundfish Fisheries
  - 2.1.1 Total catch, TAC, and biomass
  - 2.1.3 Distribution of catch among sectors
  - 2.1.4 Temporal distribution of catch
  - 2.1.5 Pollock product mix
  - 2.1.6 Prohibited species bycatch and bycatch mortality
    - 2.1.6.1 Halibut bycatch mortality
    - 2.1.6.2 Herring bycatch mortality
    - 2.1.6.3 Crab bycatch mortality
    - 2.1.6.4 Salmon bycatch mortality
  - 2.1.7 Relative importance of the Pollock fisheries
  - 2.1.8 Effort and capacity in the Pollock fisheries
  - 2.1.9 Pollock Product Prices

3.0 POLLOCK BIOLOGY AND BIOLOGICAL ANALYSES OF THE ALTERNATIVES
- 3.1 Pollock Biology
  - 3.1.1 Introduction
  - 3.1.2 Biological Parameters
  - 3.1.3 Estimates of Abundance
  - 3.1.4 Recruitment
- 3.2 Effects of Fishing on Spawning Cod Stocks
  - 3.2.1 Review of the Effect of Fishing on Spawning Stock
- 3.3 Effects on Marine Mammals
- 3.6 Effects on Seabirds
- 3.7 Bycatch of Groundfish and Prohibited Species

4.0 ECONOMIC ANALYSES OF THE ALTERNATIVES
- 4.1 Evaluation of Changes to the Pollock 'A' Season Start Date
  - 4.1.1 Expected Effects on the Changes in Value of Pollock Products
  - 4.1.2 Expected effects on economic benefits to the nation
  - 4.1.3 Expected effects on competitiveness of the US fishing industry
  - 4.1.4 Expected effects on reporting, management, enforcement, and information costs
- 4.2 Other Aspects of the Alternatives
  - 4.2.4 Effects on other fisheries
  - 4.2.6 Difficulties associated with changing the start date of the pollock 'A' season

Table 2. 1991 pollock harvest by trawl vessels in the Bering Sea/Aleutian Islands and by processor type (mt).

	Bering Sea/Aleutians		
Processor	Retained	Discard	Total
Mothership	165,227	12,668	177,895
Catch/Proc	937,200	119,410	1,056,610
Shoreplant	368,251	26,316	394,567
Total	1,470,678	158,394 (9.7%)	1,629,072

Table 3. 1992 pollock harvest by trawl vessels in the Bering Sea/Aleutian Islands and processor type (mt).

	Bering Sea/Aleutians		
Processor	Retained	Discard	Total
Mothership	232,711	16,466	249,176
Catch/Proc	724,793	104,759	829,553
Shoreplant	350,062	9,625	359,686
Total	1,307,587	130,907 (9.1%)	1,438,494

Table 4. 1991-1993 'A' Season Roe and Pollock Production, by Week, in Metric Tons

(all pollock weights are calculated from Weekly Production Reports)

1991 Eastern Bering Sea (Except Bogoslof)			1992, Eastern Bering Sea		
Week	Roe	Pollock Retained	Week	Roe	Pollock Retained
6-Jan-91	536	29,816	12-Jan-92	0	1
13-Jan-91	584	28,022	19-Jan-92	0	9
20-Jan-91	512	24,467	26-Jan-92	1,071	45,608
27-Jan-91	732	31,431	2-Feb-92	2,343	69,105
3-Feb-91	455	19,832	9-Feb-92	2,553	61,009
10-Feb-91	471	24,226	16-Feb-92	1,888	50,863
17-Feb-91	536	25,693	23-Feb-92	2,439	72,242
24-Feb-91	1,333	47,039	1-Mar-92	3,601	71,577
3-Mar-91	15	777	8-Mar-92	2,459	57,809
10-Mar-91	8	191	15-Mar-92	17	949
17-Mar-91	4	38	22-Mar-92	2	215
24-Mar-91	8	98	29-Mar-92	0.3	189
31-Mar-91	3	85	5-Apr-92	0.1	130
7-Apr-91	3	245	12-Apr-92	0.3	61
14-Apr-91	0.4	229			

1991 Bogoslof			1993, Eastern Bering Sea		
Week	Roe	Pollock Retained	Week	Roe	Pollock Retained
13-Jan-91	1,029	21,965	2-Jan-93	4	2,020
20-Jan-91	1,410	29,084	9-Jan-93	1	77
27-Jan-91	2,167	29,104	16-Jan-93	0.2	16
3-Feb-91	2,263	27,903	23-Jan-93	326	23,503
10-Feb-91	3,088	36,360	30-Jan-93	980	60,089
17-Feb-91	4,628	49,824	6-Feb-93	1,731	54,334
24-Feb-91	117	1,768	13-Feb-93	1,577	63,964
3-Mar-91	16	771	20-Feb-93	1,734	78,836
10-Mar-91	0.4	0.0	27-Feb-93	1,175	43,370
17-Mar-91	0.1	0.0	6-Mar-93	1,069	36,043
24-Mar-91	0.2	0.0	13-Mar-93	837	30,050
31-Mar-91	0.2	0.0	20-Mar-93	267	20,698
			27-Mar-93	157	20,548
			3-Apr-93	9	161
			10-Apr-93	1	71

Table 5. Estimated gross wholesale value of pollock products in 1991.

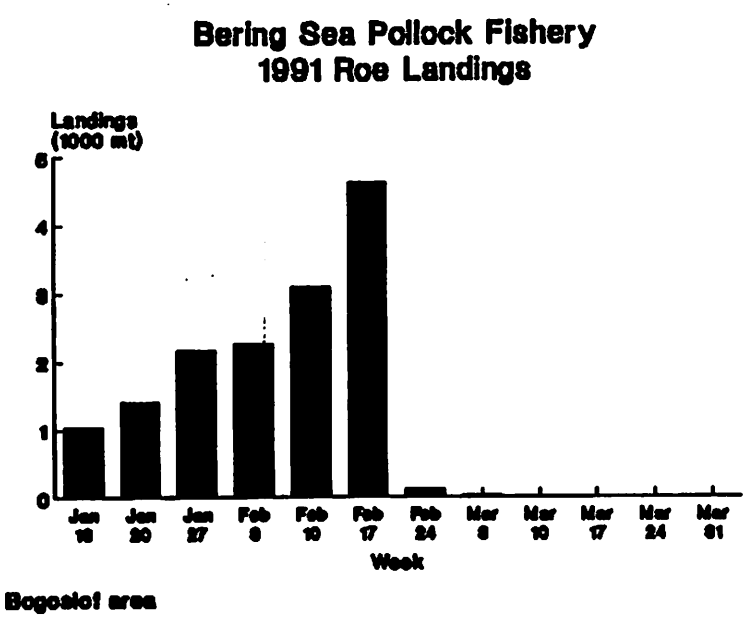
		Bering Sea/Aleutians		
Product	Price ($/lb)	Product Weight (mt)	Gross Value ($1,000)	%
Whole	0.16	369	130	0%
H&G	0.39	2,614	2,248	0%
Fillets	1.32	65,365	190,251	21%
Minced	0.70	9,143	14,112	2%
Surimi	1.42	132,618	415,240	46%
Roe	5.18	21,649	247,273	27%
Meal	0.26	55,732	31,951	4%
Total		287,490	901,206	

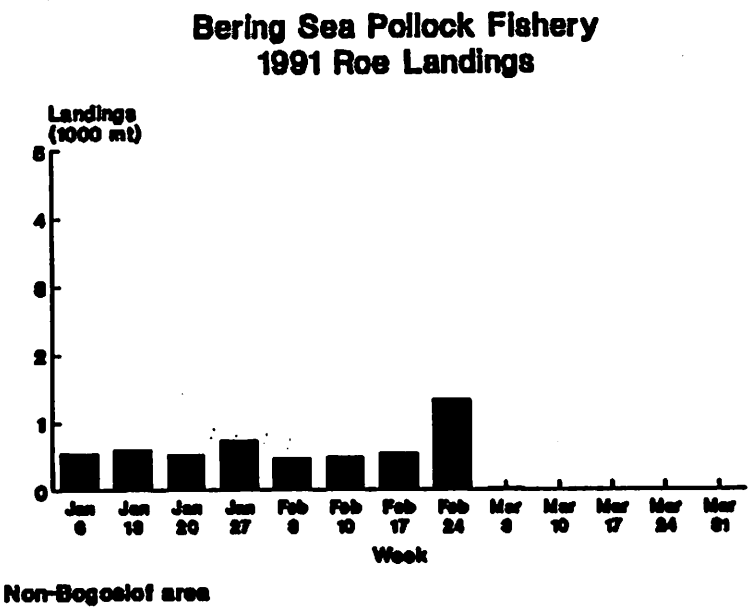
Table 6. Estimated gross wholesale value of pollock products in 1992.

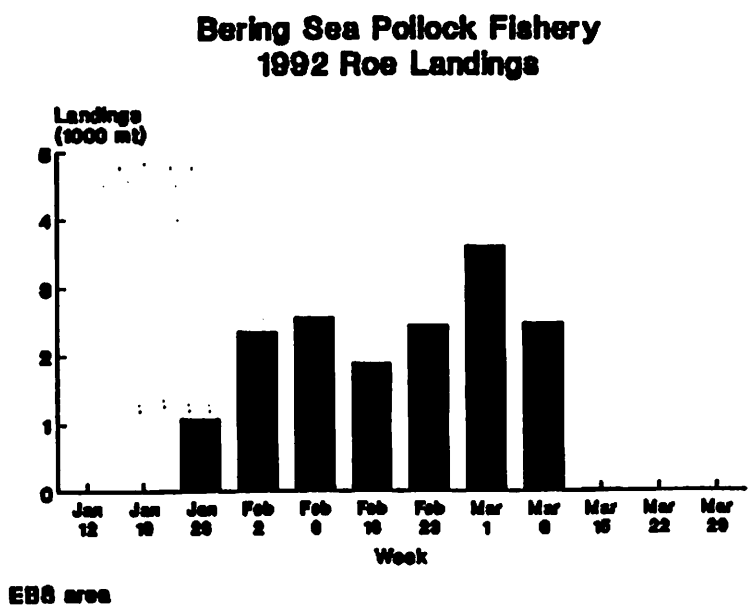
		Bering Sea/Aleutians		
	Price ($/lb)	Product Weight (mt)	Gross Value ($1,000)	%
Whole	0.16	6,845	2,415	1%
H&G	0.36	3,078	2,444	1%
Fillets	1.20	36,121	95,577	11%
Minced	0.70	13,864	21,399	2%
Surimi	1.51	155,691	518,381	59%
Roe	5.32	17,272	202,607	23%
Meal	0.23	59,261	30,054	3%
Total		292,132	872,877	

Table 7. Total 1992 BSAI pollock harvest by processor type and number of catcher/processor trawlers, motherships and catcher vessels delivering to motherships and shore plants.

		Number of Catcher Vessels				
	Pollock Harvest (% Total)	less than 60'	60' to 125'	125' or over	Total	Number of Plants
Catcher/Proc. Trawlers	829,553 (58%)	0	6	48	54	NA
Motherships	249,176 (17%)	0	0	5	5	NA
Shoreplants	359,686 (25%)	NA	NA	NA	NA	11
Catcher Vessels to Motherships					23	NA
Catcher Vessels to Shore Plants		12	67	18	100	NA







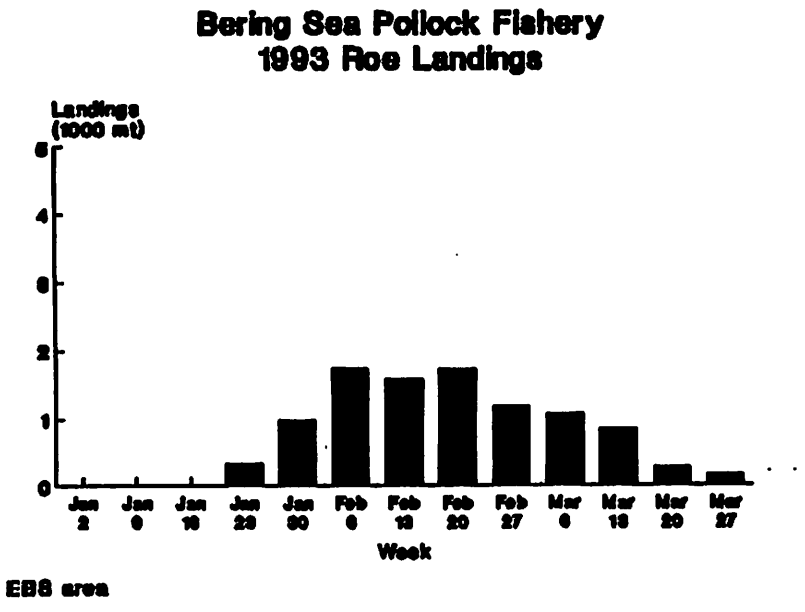
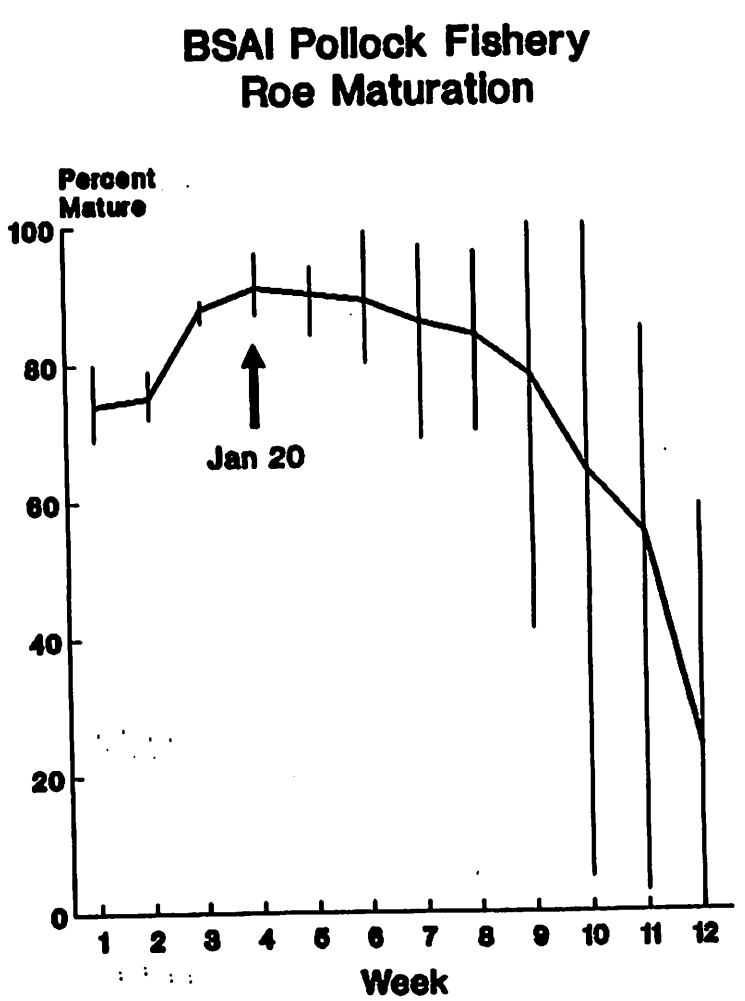


Figure 1. BSAI Pollock 'A' Season Roe Production by week, for 1991-1993.



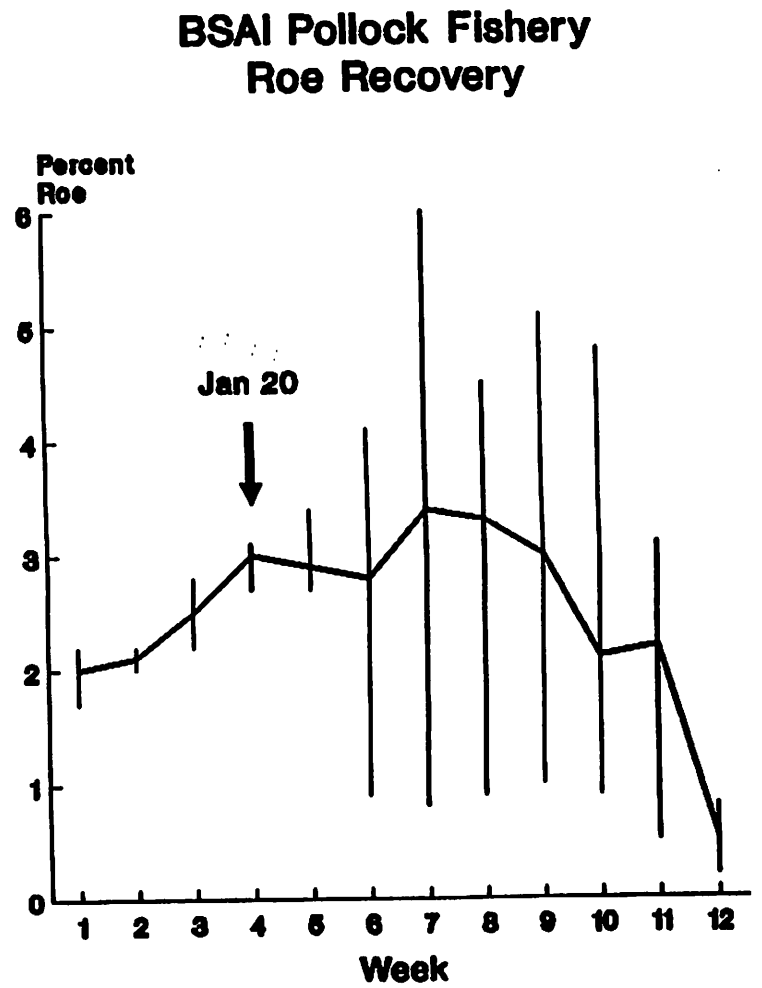
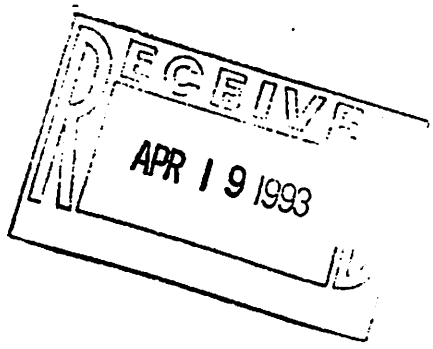


Figure 2. Roe maturation and recovery in the Bering Sea 'A' season pollock fishery, 1990 -1993. Averages (line) and ranges (bar) observed are shown by week, beginning January 1.

AGENDA D-3(c)
Supplemental

Oceantrawl



April 13, 1993

Clarence G. Pautzke
Executive Director
North Pacific Fishery Management Council
P.O. Box 103126
Anchorage, AK 99510

Dear Clarence:

I would like to take the opportunity to address several points raised in your recent letter to Oceantrawl regarding "frameworking the starting date" for the 'A' season. We believe that the framework amendment should be viewed as a vehicle for maximizing the value of the pollock 'A' season by starting the season on a date allowing the fleet to fish when the roe is at its optimal period.

As I'm sure the Council can appreciate, it requires a minimum of six months to make sound business planning decisions for our fleet. Knowing the starting date of the pollock 'A' season as soon as practical will enable us to adequately schedule the activities of our vessels and crews. In this regard we propose that the Council set at the December meeting a firm starting date of January 20 for the pollock 'A' season. The more advance notice provided by the Council, the better the predictability factor for our corporate planning purposes.

I have attached to this letter Oceantrawl's Alaska pollock roe maturation estimates for the first quarter of roe season 1990-1993. I would refer you to the National Marine Fisheries Service weekly production reports for recovery rate data. Our reports would, of course, coincide with these numbers.

I hope this information will assist the Council in preparation for a December decision on the framework opening date.

With best regards,

Edward E. Wolfe
Director Governmental and International Affairs

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D-36

Interim CDQ Trade Association

April 21, 1993

Mr. Rick Lauber
Chairman
North Pacific Fishery Management Council
P.O. Box 103136
Anchorage, Alaska 99510

Dear Mr. Lauber:

The undersigned Community Development Quota organizations wish to endorse the proposal by the National Marine Fisheries Service to station two observers on the catcher vessels participating in the CDQ pollock fisheries.

The success of the CDQ program depends on the compilation of accurate and timely data on the exact size and composition of the CDQ pollock catches. It is beyond the ability of a single observer on board a vessel engaged in an active fishing operation to sample and estimate every tow.

Additionally, the level of salmon bycatch is an issue of critical importance to our regions. Salmon is the mainstay of western Alaska's commercial fishing economy. The presence of two observers would be very helpful in obtaining exact figures on salmon bycatch so that effective measures can be implemented to minimize its occurrence.

Over the long term, the use of two observers will be highly beneficial to the CDQ program and to the entire Bering Sea fishery.

Yours truly,

H. Robin Samuelsen, Jr.
Bristol Bay Economic Development Corporation

Joe Paniyak
Coastal Villages Fishing Cooperative

John Jemewouk
Norton Sound Economic Development Corporation