



Wild, Natural & Sustainable®

SEAFOOD TECHNICAL COMMITTEE

Wednesday, November 29, 2017

10:00 AM AKST

Captain Cook Hotel

Anchorage, Ak

Call in number: 800-315-6338 **Alternate call in number:** +1-913-904-9376 **Access Code:** 87904

DRAFT MINUTES

Called to order at 11:06am

Members present:

Chair Dan Block

Vice Chair Hart

Schwarzenbach

Joe Frazier

Julie Decker

Jason Chandler

Chip Treinen

Allison Corcoran

Rodger Painter

Kimberly Stryker

Bruce Odegaard

Julie Matweyou

Chris LaCroix

Board member: Jack

Schultheis

Others present:

Dr. Bob Gerlach

Christina Carpenter

Julie Yeasting

Jake Jacobsen

Staff present:

Jeff Regnart

Susan Marks

Sara Truitt

Jhi-Jhi Ferrer

Lisa Martinson

I. Approval of Draft Agenda

Block welcomed everyone to the meeting. Schwarzenbach had one addition to the agenda under good of the order. The committee needs to vote on chair and vice chair. Painter seconded the motion. Motion passed.

II. Approval of February 2017 Meeting Minutes

A motion was made to approve the draft minutes from the February 2017 meeting; it was seconded and the motion passed unanimously.

III. Public Comment

IV. Introduction of invited members

Christina Carpenter and Dr. Bob Gerlach from Alaska Department of Environmental Conservation

V. Old Business

a. Chain of custody update – Susan Marks and Jeff Regnart

Procedure 4 Quality Management System (QMS) is relevant to the Chain of Custody (COC). The QMS is being updated to version 4 and the RFM committee would like the technical committee to review procedure 4 before presenting version 4 to the ASMI board. Three things changed, but does not change COC. Schwarzenbach had a question on page 3, under assessment scheduling. All the assessments are arranged by a certification body (CB) and an assessment must be conducted by an approved RFM assessor, but then the QMS states that if a subcontractor is used there is permission as well.

Marks and Corcoran: It is a common place for CBs can subcontract out other assessors. The subcontractors would have gone through RFM training. The CB would have to make sure that the subcontractor would have to have this training.

Schwarzenbach: It makes it sound that all of the assessors are pre-approved by the RFM process.

Fina: The subcontractor statement is to reaffirm that if you get a subcontractor they must meet the criteria as everyone else. It is a matter of wording.

Corcoran: Subcontractors have their own contact information and it may be confusing that they are not an employee of the CB. Essentially they are a 3rd, 3rd party and they need to meet the CB requirements as well to perform an assessment.

Schwarzenbach: I'm glad that you put in item 10: that there is evidence that the applicant (primary processor) has met the cost sharing requirements. Thanks to Julie Decker.

Chandler: Under the first part of the purpose and scope there is a reference to processing vessels, does it include harvesting vessels?

Decker: The COC starts at the transfer off the harvesting vessel.

Schwarzenbach: Motion to approve procedure 4 to present to the board. Decker 2nd. Motion passes.

b. ADEC update – Kim Stryker, Dr. Bob Gerlach, Christina Carpenter

Dr. Gerlach: ADEC fish tissue monitoring program. In 2001 the EPA had concerns regarding: fish consumptions and the information on heavy metals, organic contaminants, stable isotopes, fatty acids, & tissue archive. Our focus is to increase consumer confidence in the products that we have in the state.

In this study, 10,000 samples analyzed, 91+ species, marine and fresh water; however, we are lacking coverage interior salmon streams. Data on website: length, weight, age, and sampling site.

Commercial harvesters have an agreement with ADEC to provide security with the industry about sites. Nutritional analysis. Fatty Acid Analysis (FAME). Halibut more FA than previously noted. Highest level of mercury is west of the Aleutian Islands. We are working with EPA to focus on this. This is not historic and could be atmospheric pollution from Asia.

Radionuclide analytical challenges. Limited analytical capacity nationwide. Global shortage in analytical expertise. Portable gamma ray detector. 10 -hour count to get a solid reading. Using it the

last 2 years. Next stage, get them stations at the FERN labs across the US. FMP survey. People worried about mercury more than radionuclide contamination.

We work with a number of collaborators and it is an efficient use of resources. Concern with new food safety modernization act: veterinary feed directive. Hatchery can't use antibiotics unless they have a client/patient relationship with the hatchery owner. Vets need to be involved with the hatchery antibiotic operation. They will need to rely on the federal standard: know the operation, frequent and routine visits. Doesn't work with remote hatcheries. First visit, then telemedicine after that.

Schwarzenbach: Can industry help pull samples?

Gerlach: Yes, please that would be great. Alaska seafood cooperative has been sending in samples. UAF samples from them as well. Selenium is good, battles mercury ill effects.

Block: Canada is testing requirements on heavy metal content of king crab, your perspective? Industry concern? Basis?

Gerlach: Historically, crab levels of mercury are very low. He doesn't know what Canadian concerns are. FDA= 1.0 ppm level and Canada's are lower at 0.5ppm. Crab have extremely low mercury contents at 0.02ppm or somewhere around that. We recommend unlimited consumption of those species it's so low. Test they use are screening tests, gives a lot of false positives. Testing scheme may have not been appropriate.

Gerlach: Currently we rely on USDA data. The industry can take the challenge and do our own testing. Now we have a direct analyzer and much faster and cheaper. Marine fish, have higher level of selenium than freshwater. May have some mercury, but high levels of selenium too. He'll share his slides. Depending on governor's budget, how many samples he can take in. We are looking at different regions and seeing where we need to pick up more samples (Arctic coastal plain, and SE due to Canadian mining). Kohan could help facilitate, gatekeeper to industry that you need samples from a particular region and species. Industry is grateful for the data for Alaska fish.

Treinen: Are there concerns about a particular contaminant, any changes significant on a time series?

Gerlach: We are looking at mercury content in halibut, increase from SE to a lot higher in the Bering Sea. There is an increase in mercury content over time at 20% from the pacific northwest to the Gulf of Alaska and in the Bering Sea and Westward Bering Sea it has increased anywhere from 100-250% in mercury content. We have no control over this trend. Atmospheric transport of emissions from China/Asia can be seen traveling over into the Bering and the North Pacific. Melt and runoff has increased in the form of inorganic mercury, but that is not organic mercury and it is not getting into fish. Other important contaminants are PFOAs, and other fire retardants, but are targeted in the PNW.

Decker: Why are there higher mercury levels of halibut in the West Bering Sea? Is it to a level of concern?

Gerlach: It was a level of concern, because it was such an increase. It was around 0.4 and it used to be 0.1. There was a big jump in mercury. There is not much we can do here. China has built 1 mil

coal fire plants in the last 10 years. Coal in China is the worst grade of coal. The coal has high levels mercury and arsenic. We need to determine the science and not base perception and resources on fear, similar to the Fukushima disaster. We need to encourage scientists to measure these contaminants so we can reassure the public that are food is safe.

Joe Frazier: I echo the rest of the committee and want to emphasize the importance of work that ADEC is doing.

Bob Gerlach: Working with scientists at the lab to ensure quality program is right and can stand by their publications.

Block allows public comments.

Yeasting (public): Wants the technical committee at ASMI to have a voice in trade policy and trade barriers with marketing seafood. She markets sablefish to Asia and Canada, and has had hurdles with mercury. It would mean a lot to have awareness from ASMI. There's labels and copyright rules, transboundary issues, QMP requirements a small company can't afford: \$4500 a quarter. If USDC had a different program to promote smaller operations to China, but because they are smaller or direct marketer, that would be something they are more affordable. Seeking ASMI to provide awareness, not necessary to impact policy.

Kohan: Encouraged Yeasting to reach out to work together to try to find answers to those issues.

Block: Continue with ADEC presentation

Stryker: My program handles and oversees food safety, food processing and retail food/food service in the State of Alaska. Food processing inspection program is geared towards seafood. Introduces Christina Carpenter – she is the division director for Alaska Department of Environmental Health.

Carpenter: She is taking a larger role in food safety and hopes to be more involved at future Seafood Tech events and meetings. Provided some additional context to her divisions connection to Bob Gerlach's program.

Stryker: Referring to a question about international affairs, I recommend the committee consider reaching out to Steve Wilson deputy director for international office of seafood inspection (NOAA) for export issues regarding mercury content in crab.

The FSS program oversees food processing and retail food/food service in the State of Alaska.

In June, FSS underwent its 3rd audit (by FDA) to determine whether the food processing regulatory program conforms to national standards (e.g., sound regulatory foundation, a Q/A program). Standards include sound regulatory foundation, staff training, uniform inspection, QA/QC, illness/emergency response, enforcement/compliance, outreach, resource review, and self-assessments. As well, there is a laboratory support standard. Overall, the concept of the national

standards is that programs create a system, documenting its protocols/procedures, training staff, and verifying that the protocols are being followed.

The Environmental Health Laboratory achieved ISO 17025 accreditation for analyses relating to manufactured food. There are two elements to the audit: 1) conformance; and 2) implementation. For many standards, FDA found that the program both conformed and implemented the standard. However, for standard 6 (enforcement/compliance) the program is partially conformed and not yet implementing (program did not have information management system to trend and had not identified what constitutes “critical violator and critical violations” for purposes of implementation. For standard 9 (mainly documenting self-assessment activities), the program was formerly in conformance, but new provision implemented with last standards update requires a document control system, which is now under development.

The program has implemented a new inspection form along with the implementation of the program’s new information management system. The Alaska Seafood Processors Advisory Council requested that the inspection staff leave a copy of the state inspection with the firm during an outbriefing following inspection. Stryker stated that is a goal of the new system – it allows for digital signature and the ability to email the report to the operator and any others within the company that may need a copy of the report, as well.

FSS performed all of the inspections agreed upon in its contract with FDA contract. For this year, the contract includes performing inspections utilizing new GMP rules at 21 CFR 117, which the program has yet to adopt by reference. Inspection staff are working on becoming credentialed by FDA so that the state may act under FDA’s authority to perform inspections for FDA under contract. Stryker explained that the state of Alaska already requires some of the provisions that FDA previously recommended (and now require in 117). For example, HACCP already requires trained staff and everyone who processes fish already address cross-contact of allergens. There is some question as to whether Alaska can perform inspection under its own authority, since it already requires most of the critical changes reflected in 117.

FSS issues certificates for export under a contract with USDC. The cost of the certificates is equal to the amount USDC charges; however, the issues may be picked up or mailed from Anchorage, rather than from Washington State.

FSS is actively working to adopt 117, analyzing what aspects Alaska need not adopt. The first priority is to update 18 AAC 34 (Seafood Processing & Inspection) and then address general manufacturers in 18 AAC 31 (Alaska Food Code).

FSS has received inquiries from processors about the availability of permit information on its website. With the new information management system, that is not yet a capability; however, the program is working to provide a list that will be refreshed regularly (though not real time). If you have questions about a permit, DEC can provide it.

Next week is the Alaska Shellfish Growers Association conference in Ketchikan. Issues of note include water quality with first fall storms following dry summers. The storms wash nutrients from nearby land into the water; however, the water quality issues are a temporary problem that does not

reflect the water quality the remainder of the year. Vibrio remains a hot topic and FSS is talking with NOAA about vibrio research.

Stryker: FSS now provides certification for export. Some countries will only accept health certificates issued by NOAA, while others accept those issued by from the state. The state provides certificates on behalf of NOAA and can issue less expensive state certificates, depending on the requirements of the receiving county.

Schwarzenbach: USDC belongs to the QMP program they are there as a quarterly audit and offer an unlimited health certificate with no lot inspection. Are you doing lot inspections? Not yet. At this point in time, we issue the data site unseen and we get a health certificate for the product provided that DEC has already looked at our plant or not?

Stryker: No. If you are on USDC's list, that is what we are going to look at. If you are getting one from us, we are certifying that you received one from us. USDC doesn't work the same way that FDA does, so it is hard to conduct work for them and that we are compensated for it. We can't charge more than USDC charges for export certificates at \$75.00. I can follow up and send out a list.

c. Parasite study report

Kohan: Graduate intern at Kodiak Marine Science Center looked at two temperature thresholds. Frozen method analyzed how cold temp needed to be over time before parasites were killed. Parasites were not viable after 8 hours of freezing in all salmon species. A water bath was used to test the heat threshold over time to determine how much time and at what temp was needed. This study provides evidence that different fish species will have different time/temp correlations and will not all have similar parasite control as the FDA Hazard guide currently states. For Pacific salmon that were tested in this study, there are still 120 degrees was needed to kill parasites in heat.

Stryker: Are there any findings that could influence the Food Code? Should we present this as an issue with the data to encourage further studies on this for review?

Frazier: To be valid, further studies need to be done and published and create a larger network around this. The committee members discuss possibilities of next steps in study such as repeated studies, peer review, publishing.

Kohan: Noted there is a need for a conversation around bringing research to universities to inquire about further research potential/level of interest among professional researchers. Kohan notes that this is not a project for ASMI to run but better to collaborate with other organizations. There was \$16,000 invested in current study to support roam and board and stipend of the student implementing this study. Kohan will look into collaboration with Fish and Game and Oregon State University to expand this study with partners.

Dr. Gerlach: An option would be to present this project to the University of Alaska and a graduate student might be able to take a masters thesis and possibly work with the Alaska Native Tribal Health Consortium (they are interested in the food safety issues) and there could be multiple publications.

d. USDA QSP project report

With China labor becoming more expensive, Alaska whitefish suppliers are interested in identifying other reprocessing options. The quality samples program provided funding to purchase whitefish from Alaska suppliers. The funds also went towards shipping whitefish to an importer/processor in Indonesia to train them in quality practicing techniques to achieve industry standard yields for whitefish reprocessing. A full report of this project and the outcomes were sent via email to the committee. If there is interest in future participation there is grant money available and we have a good relationship with the USDA QSP staff. They encourage the participation with Alaska seafood. If you are interested in participating in the future, the grant money is there.

Trienen: Who decides the project or who supplies the product?

Kohan: We held a teleconference meeting with the international and technical committee to generate ideas and we followed up with a sign up sheet to solicit project submissions. There are some stipulations from the USDA on the project parameters.

Schwarzenbach: Will this type of project work with byproducts?

Kohan: Yes, it can work with byproducts if there are relationships established and product available.

e. Utilization outreach/specialty product outreach

Kohan: We worked with the McDowell Group, AFDF, and many others in the room to capture the current status of utilizing specialty products of Alaska seafood. The full report is available on the website. The data from this study and further studies is contingent on industry's willingness to participate. There are opportunities and possible research options for the future. We also were able to get a message out about utilization and what Alaska is doing right now on to be able to utilize our resources. Kohan notes she needs committee's feedback on which way to go or not go.

Jacobsen: Are there general recommendations from this project?

Kohan: One of the report's recommendations was to promote more community processing facilitates. The cost of shipping is a barrier to produce these products. So, how to get around this? If everyone combined and got together, processing plants can be built in Dutch Harbor or Kodiak to process and find reduced shipping costs for specialty products.

Decker: Asked how much was product is being utilized?

Kohan: The data was from multiple sources, so it wasn't easy to compare between processors. Worked with ADEC to access the data and do a meta-analysis, so the numbers are estimated, but the waste is about 50%.

Decker: A next phase of this, what amount of waste is being used? Can we apply numbers to this to really quantify how much is used and how much is remaining to be used?

International committee concurs that shipping costs is the factor; has to get \$1000/metric ton for your product to make it feasible.

Decker and Schwarzenbach: Should we develop a research project to look into the amount of waste that is available?

Kohan: This could possibly suggest more reason for specialty product processing within in Alaska in the future.

Decker: The more that we talk about how much product we use and do research on this, the better the whole message from Alaska seafood is. This is a relevant topic and spans across the ASMI programs and touches on the food waste topic.

Cochran: The issue of waste is hitting our offices from the consumer as a matter of sustainability.

Schwarzenbach: Keep focus that its utilization is for human consumption. There's a huge industry now for pet food and zoo food. There are many factors that change year over year.

Kohan: We could add to the supplier directory a list of specialty products and possibly address the recommendation of generating a buyer's guide for specialty products.

f. Shellfish Buyers Guide

Kohan: Shellfish and technical committee will need to send their comments by 12/10/17. We have contacted and asked for feedback from the shellfish harvester association.

g. PCCRC project

Kohan: This project objective is to utilizing value-added co-products and specifically extract nucleotides from pollock and halibut gonads. Is it feasible to extract it, and is there a market for it. Cannot get milt out of yellowfin sole, so couldn't use that as the second whitefish source.

Treinen: Could salmon milt be the next project?

Kohan: Yes, the focus of this grant was to work with whitefish in the Bering Sea, but there could definitely be a future project in this.

h. USDA nutrient database update

Kohan: We are working with NFI and GAPP as a stakeholder group to continue to push our agenda with Alaska seafood at the national level on database. Cod, pink and sockeye were previously sampled and submitted and the data issues were resolved at the labs. The samples are aggregated into an average with previous data points for these samples.

We have worked with the stakeholders to update nomenclature for certain species represented on the database. This composite data and nomenclature will be updated when they transition to their new site in the spring. Samples sent and labs have finished analysis. Data is at the USDA now.

Kohan: Another aspect that this committee has focused on before was should Alaska develop their own nutritional profile database? Would this cause confusion? We could work with Dr. Gerlach at the DEC lab to push this further.

Schwarzenbach: However, we don't want to regionalize the nutrition aspects of Alaska seafood. That would go against the ASMI mission.

VI. New Business

a) Update on collaborations with other ASMI programs

Block: Gives an overview of the various species committee questions/requests: 1) Salmon committee wanted revision of salmon quality handling material, 2) Halibut/sablefish committee would like to investigate further research for chalky halibut and 3) Repeal of Canadian regulation to test mercury in king crab.

Committee discusses prevalence of chalky halibut, noting Halibut/Sablefish committee note an occurrence rate of 15-18%. Committee discusses possibilities for research topics regarding the unknown causes of chalky halibut and possible survey methods to use with harvesters and processors to supplement research. Kohan offers to provide an overview with information after meeting on Friday in Juneau if he can direct us on a project idea, perhaps we could develop a project outline.

Painter: There seems to be a problem between communication between ASMI and the Canadian government on this issue. Committee discusses Shellfish committee concerns with zero tolerance for listeria. There was a discussion of listeria testing and sampling.

Jacobsen: If the project is tested for mercury, it could be tested for listeria. Processors did not want to see increased testing as it backs up the deliveries, takes more time and is expensive. On some partially cooked/ready to eat products, there's always the chance you'll find listeria and the shipment will be rejected. o

Frazier: FDA/SPA put together some listeria control guidance for cooked, ready to eat product for processors. The best guidance would be for processors to follow the guidance and keep your lots small.

Schwarzenbach: We should prepare a document on behalf of the shellfish committee to the USDC.

Kohan: I will follow up with CFIA to ensure mercury follow up is being done in Canada.

Painter: Motions that Michael continue to make contact with Canada and USDC and transmit information regarding low levels of mercury for king crab from Alaska. Decker firsts, Painter seconds motion. Motion passes.

Schwarzenbach: There is a lot of research to date about chalky halibut. There are guides for how to handle halibut to prevent chalky halibut. Possibly, we could create a combined outreach material looking at chalky halibut research as well as handling guidelines to create new guidance.

The committee briefly discusses the salmon committee desire to look at tender crews and operators.

Schwarzenbach: I volunteer to set up a program in our plant to gather data on chalky halibut. We have 8% chalky halibut that we see in our facility; however, it is different year to year and place to place.

Decker: It seems like there has been some projects that have been talked about here today that are either in the beginning stages or are follow up projects to previous agenda items. I think it would be good for Kohan to develop a summary of projects that ASMI is interested in pursuing and engage the University or outside research groups such as a Yale internship to fulfill project needs.

Kohan: I can follow up with Dr. Meyers to discuss the feasibility of a project of chalky halibut.

Trienen: The salmon committee would probably like to see some tender quality handling material that could be broadly distributed to the tendering sector.

b) SiRF/UConn study

Kohan: We are partaking in a study looking at breast cancer survivors and implementation of Omega 3's to reduce the symptom of persistent pain and fatigue. Refers to presentation available in committee packet.

c) FAO Globefish project

Kohan: We partnered with the sustainability program to establish a project with FAO Globefish on how to build a network of FAO based sustainability programs. Alaska RFM needs a concept of who we are in the larger FAO scheme in the world. They've agreed to come up with good practices as to what FAO based sustainability practices would look like.

d) Quality material review

Kohan: Notes difficulty with meat color cards production. Previously were printed in Anchorage. All digital files have been delivered to KP in Seattle. They've lined up and matched our meat color cards. Committee asks to add verbiage: "Skin color may change after freezing" for the skin color guide.

e) GMP/SSOP material review

Kohan: The recent outreach materials are on display in the room. One of the Kodiak research interns developed these posters with the Kodiak Trident processing plant. We are open to edits and feedback. Notes concept is to have jpegs on website and short videos in the future as well as a QR code of a poster that links to videos.

f) Shellfish technical photos

Kohan: The program will develop technical photos for shellfish species at some point this winter.

g) Nutrition

Kohan: There is a desire to encompass more nutrition messaging in technical program. Highlights the updating of ASMI documents and infographics for other programs. Working with international to develop doctor's office informational documents for expecting mothers about eating seafood.

h) Possible future projects

Kohan: Chalky halibut, parasite study, food preservation
Food preservation/tidal vision is interested in doing a project with AK seafood in terms of creating

a preservative agent from chitosan extracted from crab shells to understand if it works and what the market could be. Refers committee to the packet provided for further information. Explains an overview of how the preservative would work.

Decker: Why was industry hesitant when chitosan was an option to use as a preservative years ago?

Hart: Pilot project done at PFT, at that point in time, processing the crab shells the cost was prohibitive. Today's technology has gotten better which has reduced price to process the shells.

Decker: There is a lot of this to use as a preservative.

Block: Would you have to label that the preservative is an allergen b/c of the meat protein still in the chitosan after processing?

Kohan: Under a certain level, this would not have to be listed as an allergen. I will follow up on this issue before moving into set up phase for a project.

Stryker: If it's shrimp derived, then its GRAS. It's used in alcohol manufacturing.

Decker: It was entered into this year's Symphony of Seafood in several products.

Matweyou: Would like to note potential research project – investigating biodegradable packaging for seafood.

Kohan: Does not know of any research current around this, but can investigate.

VII. Good of the order

a) PFT update

Kohan: Pacific Fisheries Technologist project, held this year at Alyeska on Feb 5-7. Asks committee members to help solicit sponsorship, presenters, and speakers. Invites Chris LaCroix to present:

LaCroix: This year's theme is tools of the trade. Several groups already confirmed. Reviews groups and their focus. Several groups are still being considered. About five more groups need to be contacted. LaCroix passes out his business card to ask committee members to send him ideas of whom he might wish to have sent as sponsors. Notes that he is seeking contacts within academia as well for discussions at PFT.

Questions

1. What major challenges do you see the ASMI program you guide facing in the coming years? (short term and long term) please specify by market, species, or general programmatic concern.

The budget reductions.

2. What strengths or opportunities have you identified in the ASMI program you guide?

Utilization will be a challenge. Strong research opportunities, lots of potential in the parasite research. Environmental challenges, ocean acidification

3. Taking into account comments from the species committees, are there any specific actions you would really recommend for the ASMI program you guide (species committee comments and recommendations will be provided in writing at the conclusion of their respective meetings)

Chalky halibut. Mercury level guidelines out of Canada. Salmon handling quality materials.

4. Are there any specific questions pertaining to your program you would like the ASMI board to address? Or any specific actions you would like them to consider? If not, write N/A

Ensure stable funding.

Results of elections: Hart Schwarzenbach was elected to Chair, Dan Block was elected to Vice Chair.

Painter moves to adjourn the meeting. Chandler seconds.

Adjourned 4:18pm