Safety and health programs in Alaska's seafood processing industry:

Interviews with safety managers

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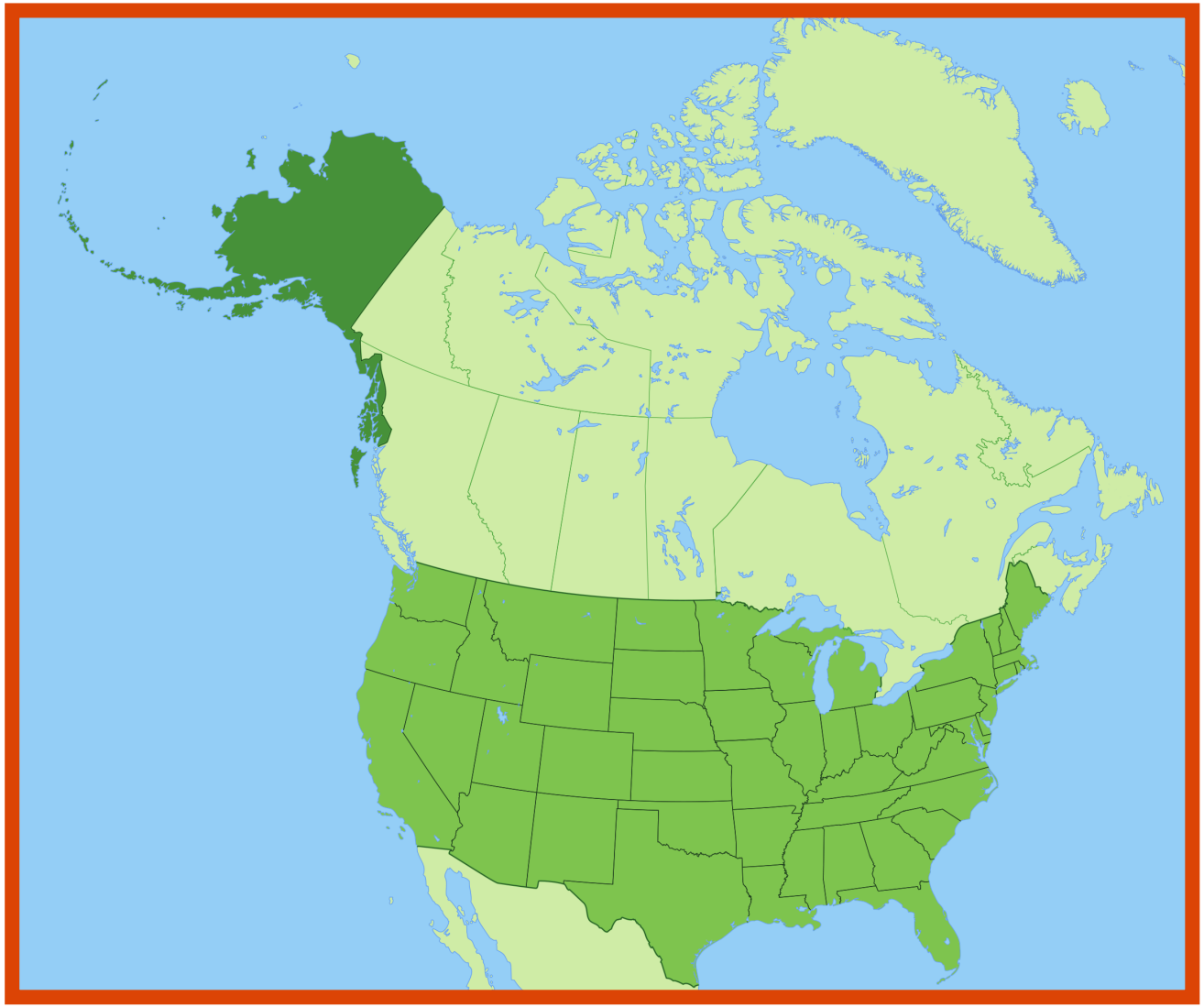

Background

Photo: Michael Penn – Juneau Empire

Alaskan seafood processing worksites

Offshore:
Vessels

Onshore:
Plants

High-hazard industry

Offshore regulators:

Onshore regulator:

All three regulators have:

- Classified seafood processing as highly-hazardous
- Implemented local emphasis programs for the industry

Surveillance data show:

- Low-risk for fatalities
- High-risk for nonfatal injuries & illnesses

Safety and health program management

Decisive factor in preventing injuries and illnesses

No research on programs or program management in Alaska's seafood processing industry

Research

Photo: AKOSH, 2012

Aims

Through interviews with managers:

- Investigate their safety and health programs
- Explore program challenges and successes
- Identify workplace factors that could be modified to improve safety and health

Photo: AKOSH, 2012

Methods

Purposive sampling

- Nonprobability method
- Representative of large companies

Participant eligibility criteria

- At least 1 year experience managing a safety and health program for offshore and/or onshore Alaskan worksites

Data collection

- Semi-structured interviews, April – August 2017
- Audio-recorded & transcribed

Methods

Interview questions covered:

- Workforce characteristics
- Safety and health program
  - Management team's role
  - Workers' role
  - Training for workers
  - Methods for reporting, analyzing, and controlling hazards
  - Economic factors
- Program successes and challenges

Methods

Content analysis approach

- Identify & highlight most relevant and meaningful aspects of transcripts
- Extract categories

Qualitative analysis

- Assigned inductive codes & phrases
- Developed data-grounded categories
- Co-author validated coding & assisted with category construction

Results

Approached 20 large companies

- Corporate & upper-level safety managers from 13 companies participated (65% response)

14 participants

- Reported managing programs for:
  - 32 plants
  - 30 vessels
  - 17,000 workers annually
    - **68%** of all workers in the industry

Results

Global workforce

- Most frequently spoken languages:
  - English; Spanish; Tagalog; Samoan; Somali; French; Arabic
  - Native Alaskan languages
- Additional languages from:
  - Micronesia; Africa; Eastern Europe

Most commonly reported challenge (13 of 14 participants)

- **Language barriers**

Photo: Trident Seafoods
Cordova, Alaska

Results

Based on participants' responses across interview topics, we identified modifiable factors:

1) **Worksite manager training**
2) **Worker training**
3) **Safety culture**
4) **Adoption of ergonomics**
5) **Work hours**

Participants described (a) **challenges** and (b) **successes** related to these factors

1.a. Worksite Manager Training

Challenge:

“Production still trumps safety to a large extent and it's very disappointing to be fighting those battles.

Part of this is lack of education of our upper management people; they've never been in the [safety] classes to get a good grasp on the issues.”

1.b. Worksite Manager Training

Success:

“We’ve had training for managerial personnel and the department heads to understand different techniques for doing root cause analysis.

They’ve gone through the hierarchy of controls.

They’ve actually shown marked improvement in the last few years at getting better corrective actions to remove hazards, rather than have controls to work around hazards.”

2.a. Worker Training

Challenge:

“There’s a lot of value in using visuals, but there’s also a lot of room for misunderstanding when all you’re using is pictures.

I’ve worked in a number of multicultural businesses, and in my experience, translators - particularly company employees - are not always reliable.

You get a lot of nodding, 'Yes, I understand,' and there really isn’t the comprehension that you need.”

2.b. Worker Training

Success:

“When I do the trainings, it’s mainly picture-based. More pictures than words, so that when I go through the presentation, everybody understands.

Then we do a lot of hands-on training.

They practice it and then we do games afterwards to make sure they understand the information and to reiterate that training.”

3.a. Safety Culture

Challenge:

“The culture change that we’re looking for is the mindset of being safe.

It doesn't matter where they come from, some people just get that production mindset, ‘Have to get it done as quickly as possible,’ not realizing you need to be safe as well.

I'd rather have you go home with all your fingers and toes and your life.”

3.b. Safety Culture

Success:

“We invite workers to attend safety meetings and provide us feedback on any improvement we can do to our safety program.

Most of the time, great recommendations are coming from our front-line employees.”

4.a. Adoption of Ergonomics

Challenge:

“When you’re only running for two months, it’s tough to justify spending half a million dollars on some machine that’s going to automatically palletize something.

Certainly you want to protect your employees.

But, if this half million dollars is not going to get paid back for 20 years, well, then you find a different way to do it, that maybe isn’t as effective.”

4.b. Adoption of Ergonomics

Success:

“We hired an ergonomic consultant, and redesigned the vessel’s bagging area. We blew out a wall and put in conveyor belts and squeezers to help eliminate the lifting hazards.

Before, the crew were lifting a bag, which might weigh 77 pounds [35 kilograms] apiece, seven times. They do roughly 6,000 bags per trip.

Now, they are only lifting a bag to stack it, put it on the conveyor belt, and then offload it. So we eliminated four of the seven lifts.”

5. Work Hours

Success:

Company switched offshore seafood processors' work schedules from 16-hour shifts to rotating 8-hour shifts.

"Because [the factory workers] are getting more rest, the safety improved quite a bit.

That could be one of the reasons other vessels within the industry are having safety problems.

Adjusting the amount of hours worked to prevent fatigue is helpful."

Conclusions

Companies could learn from each others' successes:

- Develop safety leadership among worksite managers
- Fully engage workers in safety programs

Industry, safety practitioners, and researchers could collaborate to develop and evaluate:

- Training for limited- or non-English speaking workers
- Ergonomic solutions
- Fatigue risk management systems

Photo credit: Alaska Gold Brand Seafood Producers Cooperative

Thank you!

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