The National Institute for Occupational Safety and Health (NIOSH) performed a scientific review of workplace safety in the Amendment 80 (A80) trawl fleet to understand the trends and identify opportunities to enhance safety for crews on these vessels. Researchers found that the annual number of injuries in the A80 fleet was 34 per year during 2001-2012 for a total of 409 work-related injuries (25 fatal, 384 non-fatal). The risk for non-fatal injuries was 43 injuries per 1,000 full-time equivalent employees, about four times higher than average U.S. workers.

The most frequently injured workers were fish processors (75%), followed by deckhands (17%). Handling frozen fish (41% of injuries) was responsible for undiagnosed pain/swelling, sprains, strains, tears, contusions, fractures, crushing injuries, and intracranial injuries. Processing fish (21% of injuries) was responsible for lacerations, punctures, avulsion injuries, and amputations.

**Injury Type**

- Intracranial injury
- Contusion
- Laceration/puncture/avulsion
- Fracture
- Undiagnosed pain/swelling
- Amputation
- Sprain/strain/tear
- Other

**Harm to Body**

- **Head**
  - Intracranial injury: 44%
  - Contusion: 26%
  - Laceration/puncture/avulsion: 14%
  - Fracture: 11%
  - Other: 5%

- **Arm/Hand**
  - Intracranial injury: 30%
  - Contusion: 23%
  - Laceration/puncture/avulsion: 19%
  - Fracture: 14%
  - Amputation: 11%

- **Torso**
  - Intracranial injury: 42%
  - Contusion: 38%
  - Laceration/puncture/avulsion: 22%
  - Fracture: 20%
  - Other: 16%

- **Leg/Foot**
  - Intracranial injury: 27%
  - Contusion: 23%
  - Laceration/puncture/avulsion: 20%
  - Fracture: 16%
  - Amputation: 14%

**Safety Recommendations**

- Commit to 100% incident reporting to give complete data for injury prevention efforts
- Protect workers from being struck by boxes of frozen fish
- Focus on preventing injuries and reducing hazards while processing fish
Vessel Casualties

205 vessel casualties were recorded within the A80 trawl fleet. Vessel casualties are incidents that threaten the safety of a vessel such as: fires, flooding, and loss of propulsion or steering. Vessel casualties are hazardous incidents that can injure workers.

The most common types of vessel casualties were loss of electrical power and loss of propulsion. In most cases the loss of power were minor, while loss of propulsion casualties were often moderate or serious. However, a decrease in the risk of serious vessel casualties has been achieved since 2007, after vessels made changes required by the Coast Guard Alternate Compliance and Safety Agreement (ACSA).

Safety Recommendations

- Maintain ACSA enrollment and examine the specific injuries and vessel casualties occurring on individual vessels
- Conduct monthly safety drills including abandon ship, MOB, and fire drills

137 vessel casualties were minor, meaning the problem was fixed at sea by the crew without any help.

45 vessel casualties were moderate, meaning the vessel returned to port for repairs.

20 vessel casualties were serious (90% due to loss of propulsion), meaning the vessel had to be towed to port for repairs.

*Total number of vessel casualties by severity does not equal 205 due to missing data on three cases.


To receive NIOSH documents or more information about occupational safety and health topics, please contact NIOSH. Telephone: 1-800-cdc-info (1-800-232-4636) | TTY: 1-888-232-6348 | www.cdc.gov/info.