

**Accidents Ashore:
Occupational Safety Risks and Challenges
and Newfoundland Wharves**

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Wharves and harbours exist in thousands of Canadian coastal communities.

- Critical pieces of public infrastructure
- Vital and often congested workspaces
- Multiple employers
- Relative risk largely invisible in Compensation statistics.
- Public spaces open to tourists, residents, recreational boaters, kayakers, divers...
- OHS jurisdictional no man's land or everyman's land?

Goals

- Identify some of the health and safety issues associated with working on wharves in rural Newfoundland by documenting:
 - Activities that take place on wharves
 - Groups engaged in these activities
 - OHS risks and types of accidents and near-misses observed on wharves
 - Governance issues related to OHS on wharves

Multi-stage, multiple methods collaborative research project focusing on fishery-related wharves

- Steering committee made up of community stakeholders

Methods

- Review of the literature
- Semi-structured interviews with local wharf users
- Semi-structured interviews with regional authorities and governance review
- Telephone survey of Harbour Authority members and Dockside monitors.

Key word search: wharf, safety, port, dock, fishing safety, shoreside

Search engines: Scopus, the Canadian Centre for Occupational Health and Safety database, ISI Web of Knowledge, Applied Science and Technology Index (H.W. Wilson), Lexis Nexis Academic, PubMed, and Google Scholar

Identified additional sources in relevant articles.

Key findings

- OHS issues on fishing wharves are under-researched
- French fishery 30% of all registered injuries occur while the vessel is docked (Le Bouard and Chauvin 2006)
- Japanese fishing ports' working environment results in awkward and damaging work postures (Saeki et al 2002)
- Repair work or work by the wharf is the 2nd most accident prone activity in the Swedish fishery (Torner er tal. 1995)
- Embarking/disembarking are significant sources of fatal and non-fatal accidents in the Danish fishery (Laursen et al. 2008).

Semi-structured interviews sample of wharf-users on:

- The range of activities and user groups on wharves in rural Newfoundland
- How wharf activities interact with one another to create risk
- Perceptions of hazards present on wharves
- Observed incidents on wharves
- 35 interviews with 41 participants in 18 communities in three regions of Nfld.

Participants by User Type

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| User type | Respondents interviewed |
|--|-------------------------|
| Harbour Authority | 13 |
| Fish harvester | 9 |
| Discharge crew - supervisor | 8 |
| Discharge crew - laborer | 4 |
| Port Authority or Corporation | 3 |
| Fish plant Manager | 3 |
| Forklift operator | 3 |
| Fish plant or buyer - Safety officer / committee member | 3 |
| Truck driver | 2 |
| Recreational | 2 |
| Weighmaster | 1 |
| Dockside Observer | 1 |
| Commercial shipping | 1 |
| Cold storage | 1 |
| Marine service centre | 1 |
| Tourism industry | 1 |



1. Multiple employers and different activities sharing often congested space.
2. Multiple and diverse wharves in each community.
3. Activities continuous from water to wharves to adjacent facilities.
4. Significant differences from one community to the next in wharf usage patterns.

Incident type / severity



| Incident type | Fatal injuries | Non-Fatal Injuries | Property damage | Close calls | Total |
|--|-------------------------------|--------------------|-----------------|-------------|-----------|
| Slip/trip/fall into water | 1 | 3 | | 6 | 10 |
| Slip/trip/fall - boat | | 1 | | 2 | 3 |
| Slip/trip/fall – in truck | | 2 | | | 2 |
| Slip/trip/fall – on wharf | 1 | | | | 1 |
| Struck by falling/flying object | | 4 | | 4 | 8 |
| Collision | | 1 | 2 | 3 | 6 |
| Vehicle tip or fall over (into water) | 1 (single incident, 2 vicims) | | 1 | | 2 |
| Vehicle tip or fall over –onto surface | | | | 5 | 5 |
| Mechanical failure – Stabilizer Fin or Boom | | | 2 | 5 | 7 |
| Mechanical failure – boat hoist or jib crane | | | | 3 | 3 |
| Mechanical failure – Boat lift or other | | | | 3 | 3 |
| Poisoning/suffocation | | 2 | | | 2 |
| Boat fire | | | 4 | | 4 |
| Other | | | 1 | 2 | 3 |
| Total | 3 | 13 | 10 | 33 | 59 |

Incidents by user group



| User category | Incidents involved |
|--|--------------------|
| Offloading crew (includes forklift, truck drivers) | 33 |
| Fish harvesters | 23 |
| Recreational | 8 |
| Harbour Authority | 7 |
| Public | 5 |
| Marine Service Centre | 1 |
| Tourism | 1 |
| Unknown | 3 |



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- Time pressure / rush periods
- Bad Weather
- Congestion
- Parked vehicles
- Debris on the wharf
- Public access

Objective: to document the regulatory framework governing health and safety on fishing and fishery-related wharves

- What OHS regulations apply?
- How do these regulations interact?
- When, how, and to whom are accidents and near-misses supposed to be reported?
- Who is responsible for inspecting wharves and for promoting wharf safety?
- From a regulatory perspective, what are some of the prevention challenges?

Methods:

- Semi-structured interviews with regulatory agency (5 representatives (6 interviews with rep.'s from 4 agencies)
- Review of regulations and related documents

Provincial agencies

- *Government Services – Occupational Health and Safety*
- *Workplace Health, Safety & Compensation Commission*

Federal agencies

- *Human Resources and Skill Development Canada – Labour Program*
- *Transport Canada*
- *Department of Fisheries and Oceans – Small Craft Harbours Branch*

Governance findings

- Some trucking, ferries, shipping and related services are federal
- Commercial fishing –federal or provincial?
- Buyers, processors, members of discharge crews, transport truck drivers who ship within the province fall under provincial jurisdiction
- Most contractors (vessel maintenance) fall under provincial jurisdiction (Government Services) except when contracting to Harbour Authorities (wharf maintenance) which falls under federal jurisdiction
- Federal OHS regulations might be enforced by either Transport Canada or HRSDC

Jurisdiction in matters of wharf safety is complex, ambiguous and changing

- Until 2006, DFO Small Craft Harbours in NL took Harbour Authorities as falling under provincial jurisdiction
- Decision in 2007 *Regina vs. Mersey Seafoods Ltd.* court challenge was that N.S. legislation did not apply and that...

“a two fold jurisdiction promotes the proliferation of preventative measures and controls in which the contradictions, or lack of co-ordination, may well threaten the very occupational health and safety which is sought to be protected.”

Fishery-related wharves are ‘multi-employer worksites’ (Wright 2006) where the ‘creating employer’, ‘exposing employer’, ‘controlling employer’ and ‘correcting employer’ may all be different.

There may not be a “prime contractor”

Are they an OHS *no-man’s land* or *everyman’s land* from a regulatory point of view?

- Isolated communities
- Limited resources
 - Regulators
 - Funders and managers
 - Users
- Lack of Easy to Access Information on Wharf-related Accident and Fatality rates
- Local variability
 - Regulations specify “what” not “how”
- Do wharf users...
 - Understand their obligations?
 - Have the tools or authority they need to fulfill them?

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