Lower Columbia Region Harbor Safety Committee
Harbor Safety Plan | Chapter 11

RESTRICTED VISIBILITY GUIDELINES

CHANGE LOG:

Changes Made	Sub-Committee	Date Approved
Updated logo. No content changes.	N/A	4/4/23

A. General

Conditions of restricted visibility require mariners observe extra caution as set forth in Rules19 of the applicable International or Inland Rules of the Road. Under certain circumstances, vessels may transit the Columbia and Willamette Rivers safely in reduced visibility provided a positive evaluation is made by the Master and Pilot (if employed). This risk analysis should include, but is not limited to, the maneuvering characteristics of the vessel, quality of the vessel's radar picture and navigational system, the vessel's size and draft in relation to the area to be transited, quality of the vessel's bridge team, vessel traffic and congestion in the area, anticipated visibility along the route, and special circumstances to be encountered.

B. Local Conditions

The Columbia River deep water navigation channel stretches from the mouth of the Columbia River to the Vancouver/Portland harbor, a distance of approximately 115 miles. Weather along the route consists of a series of microclimates. For example, about 40 miles from the mouth of the river is the area known as Skamokawa. This name derives from a Native American term meaning "smoke on the water". There may be fog in the Skamokawa area but not elsewhere on the route.

In the spring and fall with clear skies and calm winds, radiation fog can generate in the evening in the low lands along the river and become dense along portions of the river. This fog will usually dissipate with a light breeze or as daytime temperatures rise. In the summer, sea fog (advection fog) can generate offshore and gradually move inland with westerly winds to cover the Columbia River Bar and inland.

C. Standards

1. When coastal fog restricts visibility on the Columbia River bar and its approaches, the vessel's Master and Pilot (if employed) should assess all variables and determine whether it is safe for a vessel to enter the river. In some cases, it may be safer to wait offshore until visibility improves.
2. In situations of restricted visibility, a vessel that is underway may proceed along its intended passage with caution.
3. Vessels intending to dock in restricted visibility should be able to visually see the intended wharf for the entire length of the vessel. However, the Master and Pilot (if employed) may assess all variables and determine that the best course of action is to proceed to the dock.
4. Vessels at dock or anchored in a safe anchorage should not commence movement if visibility is less than 0.5 miles unless the Master and Pilot (if employed) assess all variables and determine that the vessel can proceed safely.

D. Critical Maneuvering Areas (CMA)

There are areas to the Columbia-Willamette Rivers where additional standards of care are required due to the restrictive nature of the channel, proximity of hazards, or the prevalence of adverse currents. Vessels of 1,600 gross tons or more, tugs with barges 1,600 gross tons or more, or vessels with hazardous cargo should not transit CMAs when visibility is less than 0.5 miles.

Locations on the Columbia-Willamette Rivers identified as Critical Maneuvering Areas are:

- Vancouver Railroad Bridge Main Channel.
- Vancouver Railroad Bridge North Portland Harbor.
- I-5 Interstate Bridge.
- Lady Island Towers.
- Vicinity of Washougal dolphin.
- Garrison Rapids.
- Portland Bridges between Broadway and Hawthorne Bridges.

E. Special Notes

- Small vessels (under 20 meters in length) take on an increased risk in restricted visibility due to difficulty in detecting these vessels with radar. Smaller vessels should use radar reflectors to increase the possibility of being detected by other vessels.
- Vessels without radar should not attempt to get underway in areas of restricted visibility.

Nothing in these guidelines shall be construed to require a vessel's Master to commence a transit in reduced visibility. The Master/Pilot's judgment and years of experience are the cornerstones of safe navigation.