

# Campaign to Ban Heavy Fuel Oil From Arctic Shipping

## Clean Arctic Alliance Position Statement



### The Use of Heavy Fuel Oil by Vessels Operating in the Arctic:

#### ... POSES A MAJOR RISK TO THE ARCTIC MARINE ENVIRONMENT

Heavy fuel oil (HFO) is an extremely toxic and viscous marine fuel that breaks down slowly in the marine environment, particularly in colder regions like the Arctic. In the event of an HFO spill, lack of infrastructure, severe weather conditions and navigational hazards such as sea ice, make spill response efforts nearly impossible. If an HFO spill were to occur in ice-covered waters, oil could be trapped in ice, causing the oil to persist even longer, and enabling its transmission over long distances. Aside from the devastating acute impacts an HFO spill will have on an ecosystem, studies on the long-term impacts of an Arctic spill demonstrate oil can remain within the affected area for more than a decade, impacting growth and reproductive rates of various species.



#### ... PRODUCES HARMFUL EMISSIONS THAT NEGATIVELY IMPACT THE GLOBAL CLIMATE

The use of HFO as fuel produces harmful and significantly higher emissions of air pollutants, including sulphur oxide, nitrogen oxide, particulate matter, and black carbon (BC), than other marine fuels. In particular, BC is a critical contributor to human-induced climate warming, especially in the Arctic. When BC falls on light-coloured surfaces, such as Arctic snow and ice, it reduces the amount of sunlight reflected back into space. This process can accelerate snow and ice melt, increase the surface area of exposed, dark ocean water, and promote a self-reinforcing cycle of land and sea ice melting and climate warming. In fact, a recent study determined that BC emitted from in-Arctic sources warms the Arctic five times more than BC emitted elsewhere.



#### ... THREATENS THE FOOD SECURITY, LIVELIHOOD AND WAY OF LIFE OF ARCTIC COMMUNITIES

Many indigenous residents of the Arctic region depend on marine resources as a primary food source, use marine resources as a source of clothing and equipment, as material for handicrafts, and to support their limited commercial fishing, hunting, and ecotourism activities. An HFO spill in the Arctic will have devastating consequences on these communities and the resources they depend on for their nutritional, cultural, and economic needs.



#### ... PRODUCES EMISSIONS THAT IMPACT HUMAN HEALTH

Emissions from shipping pose an acute and substantial risk to human health. In particular, pollutants such as particulate matter, BC, sulphur oxide and nitrogen oxide have been linked to an increased risk of heart and lung disease as well as pre-mature death.



#### ... IS EXPECTED TO INCREASE AS VESSEL TRAFFIC IN THE ARCTIC INCREASES

Studies estimate that overall shipping activity in the Arctic will increase by more than 50% between 2012 and 2050. While shipping currently accounts for about 5% of BC emissions in the Arctic, this number is expected to double by 2030 and quadruple by 2050 given current projections for increase in Arctic shipping. At the same time, the risk of an HFO spill will increase as a greater number of ships transit the Arctic for commercial or recreational purposes.



### Addressing the Risks Associated with Heavy Fuel Oil Use in the Arctic

HFO is currently used for two discrete purposes in the Arctic. First, HFO is used as marine fuel for ships traveling through Arctic waters. Second, some Arctic communities use HFO to heat their homes and power equipment. Given these two distinct uses, any effort to mitigate the risks posed by the use of HFO in the Arctic must be accomplished through two separate approaches:

#### ADDRESSING THE RISKS POSED BY THE USE AND CARRIAGE OF HFO FOR SHIPPING FUEL

Phasing out the use and carriage of HFO for fuel in Arctic waters is the most direct mechanism for mitigating the numerous consequences of an HFO spill and reducing harmful emissions in the Arctic region. For example, switching from HFO to an alternative fuel, such as low-sulphur distillate fuel, is expected to reduce BC emissions by an average of 30 percent.

#### ADDRESSING THE RISKS ASSOCIATED WITH THE CARRIAGE OF HFO AS CARGO

In recognition of the dependence of some Arctic communities on HFO for household use, the Clean Arctic Alliance is not currently focused on the carriage of HFO as cargo. However, in order to address the risk of an HFO spill in Arctic waters, the carriage of HFO as cargo must be considered at a future time.

### The International Maritime Organization Must Phase Out the Use of Heavy Fuel Oil by Ships in Arctic Waters

At this time, phasing out the use of HFO as marine fuel is the most effective mitigation strategy and is the priority for the Clean Arctic Alliance. Accordingly, the Clean Arctic Alliance urges the International Maritime Organization, the appropriate international body to regulate the use and carriage of HFO, to adopt a legally binding instrument to phase out the use of HFO as marine fuel in Arctic waters by 2020.