Impact assessment and an Arctic HFO ban

In April 2018, the International Maritime Organization (IMO) committed to develop a ban on HFO for use and carriage as fuel by ships in Arctic waters, on an appropriate timescale, on the basis of an assessment of the impacts.

An impact assessment methodology should follow these 5 STEPS (MEPC 73/9/2, Aug 2018):

1. **Define the problem**
   - The most significant threat from ships to the Arctic marine environment is the release of oil through accidental or illegal discharge (a).

2. **Define policy objectives**
   - Develop measures to reduce risks of use and carriage of HFO as fuel by ships in Arctic waters, particularly with respect to environmental damage associated with HFO spills (MEPC 71/17, October 2017).

3. **Develop policy options**
   - Given the clear direction taken by the IMO (MEPC 72/17, April 2018), the policy objective under consideration is how to best implement a ban on the use and carriage of HFO for use as fuel by ships operating in the Arctic, based on the outcome of an impact assessment.

4. **Analyze impacts**
   - Identify and assess the economic, environmental, and social implications of a ban of HFO for use and carriage as fuel by ships in Arctic waters.

5. **Recommend a policy option**
   - Given the clear policy direction, and the fact that a tried and tested methodology for an impact assessment is widely available and most of the elements of an impact assessment have already been undertaken, work to develop a new regulation to ban the use and carriage of HFO as fuel by ships operating in the Arctic should commence.
Focus on Step 4: Analyze Impacts

Environmental Impacts

The first of four multi-phase reports published by the Arctic Council concludes that using distillates instead of HFO as fuel would achieve significant spill risk reduction (b).

**RISKS**

An incident resulting in 1 oil spill in the Arctic could be expected every 1.6 years* (c).

**THREAT**

The consequences of HFO spills could be prolonged because of its persistent nature, and the threat to marine life and economically sensitive resources can last longer in the event of a HFO spill* (d).

*based on 2012 shipping levels

**Economic Impacts**

**Costs associated with HFO ban** (e)

- Arctic fleet’s fuel expenditure: +3-18% in 2021
- Costs for a ship or using HFO in combination +2% with a scrubber to comply with the global sulphur cap. +4-15%
- Average import and export price of goods +0.2% in Greenland
to 0.5%
- Cost of food shipped to Iqaluit +0.2% in North Canada
- Cost for dry cargo shipped +1% through Arctic Sealift operations in Canada (f)

**Case-study**

In August 2007 IMC Shipping (operators of the MV Selendang Ayu) reached a financial settlement with the State of Alaska for the spilled oil damages. It was agreed that the total payout would be $112 million, which included:

- Formalized response over $100 m
- Criminal penalties (fines) $9 m
- Clean-up costs to the State of Alaska $2.5 m
- Wreck removal and lost taxes (fishing) $844,707
- Beach monitoring $36,000

**Social Impacts**

We are constantly reminded how taking action on greenhouse gas emissions will negatively impact our economy ... which is a very outdated card to play at this stage with our climate crisis. I would say do not play this card when it comes to banning HFO which has potential to create extreme irreparable damage to our Arctic oceans ... and I repeat the oceans are the life force and source of life for us as Inuit of the Arctic.

Sheila Watt-Cloutier, Environmental and Human Rights Advocate

Sources:
(a) Arctic Marine Shipping Assessment, Arctic Council 2009
(b) Det Norske Veritas, 2011. Heavy fuel in the Arctic – Phase 1
(c) Det Norske Veritas 2013. HFO in the Arctic – Phase 2
(d) Ansell et al., 2001. A review of the problems posed by spills of heavy fuel oils. ITOPF
(e) Nelissen, D. & Tol, E., Residual bunker fuel ban in the IMO Arctic waters, CE Delft, 2018
(g) Deere-Jones, T., Ecological, Economic and Social Impacts of Marine / Coastal Spills of Fuel Oils (Refinery Residuals), 2016
(h) DeCola, et al., Phasing Out the Use and Carriage for Use of Heavy Fuel Oil in the Canadian Arctic: Impacts to Northern Communities, Nuka Research and Planning Group, 2018.

Other reading:

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