CONSTRUCTION STANDARDS FOR COMMERCIAL FISHING VESSEL

Ventilation systems, cooking, heating and other domestic appliances

Section 6.0

Accommodation ventilation (6.8)

Actual requirements:
- Ventilation required with minimum duct size without regards to fuel burning appliances
- Additional requirements if the crew spaces and the engine room are in adjoining compartments → vessels < 15.2 m
- Suitable ventilation, no minimum required → vessels < 15 grt

Proposed requirements:
- Ventilation required in addition to conventional means
- Increase in duct size for each berthed crew member
- Minimum effective area offered by air ducts → fuel burning appliances
- Provisions made for mechanical means of forced ventilation
- Every space containing a toilet → natural ventilation
Accommodation ventilation (6.8)

-A vessel which is fitted with an enclosed accommodations space and a gasoline inboard engine, an LPG appliance or any fuel burning appliances with a non-sealed combustion chamber shall be fitted with an explosive or noxious gases detection system. The system shall be UL/ULC/CSA approved and give both audible and visual alarm at the control station.

Impacts:
- Low to moderate cost wise
- May create design or construction related problems

Engine room ventilation (6.3)

Actual requirements:
- Gasoline fuelled engine → the engine compartment shall be mechanically force ventilated before starting the engine
- Suitable air supply → minimum duct size required >15 grt

Proposed requirements:
- Gasoline fuelled engine → in addition to the actual requirements minimum air flow and ventilation time must be observed and a visual indicator available when the blower is operating
**Engine room ventilation (6.3)**

- Air supply and exhaust
  - Provisions made for ducts layout
  - Ducts cross sectional area related to machinery needs including a minimum cross sectional area applicable
  - Provisions made for materials used in ducts and components → >12 m ducts made of metallic material
  - Provisions made for cowls and ventilation openings

- Impacts:
  - Moderated cost wise
  - May create new construction or refurbishing related problems

**Ventilation for open spaces vessel construction (6.3.3)**

**Actual requirements:** None

**Proposed requirements:**
- A separate ventilation system is not required if some design requirements are met (size of open area)

**Impact:**
- Very low → applies to only a very small portion of the fleet
Battery spaces ventilation (6.7)

Requirements stated at section 8:

Cooking, heating and other domestic appliances (6.6)

Actual requirements:
- Suitable supply of air needed to fulfilled the combustion process
- Free circulation of air all around the appliance and all inflammable material nearby must be insulated
- Liquefied petroleum gas systems → to meet the marine machinery regulations >15 grt and a certificate of compliance issued by an approved organisation <15 grt

Proposed requirements:
- Cooking, heating and other domestic appliances shall be electrically operated except where the installed generator capacity is inadequate
Cooking, heating and other domestic appliances (6.6)

Fuel burning appliances shall be accepted subject to the following:

1. Type of fuel
   - **Solid fuel** → coal, charcoal or wood → these are prohibited on gasoline installation
   - **Liquid fuel** → allowed → diesel et Kerosene oil prohibited → gasoline, alcohol and naptha
   - **Gaseous fuel** → allowed → liquefied petroleum gas prohibited → compressed natural gas

2. Appliances general particulars
   - appliances designated for marine use and listed by a recognized agency such as UL/ULC/CSA and installed in accordance with manufacturer’s recommendations
   - provided with a flame failure device which will provide an automatic shut-down of all burner operations and a means of automatic shut-off of the fuel supply on detection of high temperature or flame failure → operator intervention required to restart a burner

3. Appliances specific particulars
   - stoves → continuously lighted pilot lights are prohibited except for appliances using sealed combustion chamber
   - space heaters → sealed combustion chamber type designed only
Cooking, heating and other domestic appliances (6.6)

4. Installation general specifications

- appliance installation → free circulation of air all around the appliance and all inflammable material nearby shall be insulated
- exhaust ducts → provided with draughts limiting devices and shall be insulated
- supply of air → related to appliance needs and each berthed crew member
- fuel supply shall be in accordance with the requirements of section 7.0
- printed instructions for operation and safety instructions shall be permanently mounted in a location adjacent to the appliance

Cooking, heating and other domestic appliances (6.6)

5. Installation specific particulars

   Stoves → provided with steel exhaust fan and hood. The hood or duct shall be fitted with a grease trap → shall not be used for spaces heating purposes → shall not be installed in dedicated sleeping spaces

6. Special requirements for appliances using liquefied petroleum gas

   - no more than two 10 kg containers shall be carried on board
   - shall not be used in dedicated sleeping spaces
   - shall be installed to provincial gas enforcing authority standards
**Cooking, heating and other domestic appliances (6.6)**

**Impact:**

Some items can only be purchased as special equipment → end up being expensive for all concerned vessels

Limited use → small vessels where berthed spaces open to the galley

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**THANK YOU**

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