**General (8.3)**

**Present requirements:**
- Plans for electrical system < 55 volts, requirements not mandatory.
- Plans for electrical system > 55 volts, requirements according to TP 127, *Ships Electrical Standards*.

**Proposed requirements:**
- Plans for electrical system < 50 volts, requirements more specifically: cable type, batteries, cable colour code, etc.
- Plans for electrical system > 50 volts, requirements more defined such as: load analysis, lighting, distribution panels.

**Impact:**
- Low, required now for vessels < 15 GT or <12 M.
**Ignition Protection (8.4)**

**Present requirements:**
- All vessels, no specific requirements in regard to ignition protection

**Proposed requirements:**
- Vessels < 24 M, protection required in enclosed spaces containing gasoline engine and LPG systems
- According to standards UL1500 and SAE J1171

**Impact:**
- Low, already a construction practice for LPG installation.
  Requires the implementation for gasoline installation

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**Electrical Equipment (8.5)**

**Present requirements:**
- Vessels < 15GT, no mandatory requirements
- Vessels > 15 GT, requirements according to TP 127, *Ships Electrical Standards*

**Proposed requirements**
- All electrical appliances, accessories and fittings shall comply with CSA (Canadian Standards Association) and effectively fulfil the purpose of which they are intended and be marine type
- Drip proof, protected against weather, corrosion resistant, minimize the electro- magnetic induction (interference), flame retardant

**Impact:**
- Low, generally a construction practice
- UL/ULC standards not accepted
**Electrical systems < 50 volts (8.6)**

**Present requirements:**
- Vessels < 15 GT, no requirements for systems designs
- Vessels > 15 GT, requirements according to TP 127, Ships Electrical Standards

**Proposed requirements:**
- Vessels < 24 M, sections of TP 127 partially inserted in the construction standards and personalized to fishing vessel
- Stand alone construction standards for electrical installation

**Impact:**
- Low, generally a construction practice

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**Electrical Systems < 50 volts**

**Proposed requirements:**
- Circuit type
- Grounding and bonding equipment
- Batteries and capacity
- Cable standards type
- Cable installation
- Switching panels board and distribution panels
- Over current protection
- Navigating lights and branch circuits
- Installation and connection of conductors
- Emergency system requirements
**Electrical Systems < 50 volts**

New and clarified requirements:

- Battery disconnect switch
- Battery load calculations
- Cable colour code
- Secondary circuits of ignition system
- Cable and conductors
- Navigating lights and emergency system
- Bonding
- Support and protection of cables
- Lightning protection (new)
- Automatic fire detection and fire alarm system (new)
- Public address system (new)
- Antennas

**Impact:**
Important, generally the construction industry does not do the following:

- Load calculation for batteries
- Cable Colour Coding
- Installation of a public address system
- Installation of an automatic fire and detection system
Electrical Systems > 50 volts (8.6.2)

Present requirements:
- Electrical systems > 50 volts and < 300 volts for vessels > 15 GT, requirements according to TP 127, Ships electrical standards

Proposed requirements:
- Vessels < 24 M, sections of TP 127 partially inserted in the construction standards and personalized to fishing vessel. Standalone construction standards. Example: installation of AC 240/120 Volt, 1 Phase generator

Impact:
- None, generally a construction practice

Electrical Systems > 50 volts (8.6.2)

New and clarified requirements:
- Shore connection
- AC generator
- Single-phase isolating transformer system (new)
**Electrical circuits of > 300 volts (8.9.2)**

**Present requirements:**
- Electrical system < 300 volts for vessels > 15 GT requirements according to TP 127, Ships Electrical Standards

**Proposed requirements:**
- Vessels < 24 M, electrical circuits above 300 volts refer to the TP127, Ships electrical standards

**Impact:**
- None

**Automatic Fire Detection and Fire Alarm System (8.18)**

**Present requirements:**
- All vessels of GRP, aluminium or wood construction require a hard wire detection system for the machinery space as per TP 5595. All other vessels there are no mandatory requirements

**Proposed requirements:**
- All vessels < 24 M, will have an automatic fire detection and fire alarm system with specific requirements

**Impact:**
- High, generally no fishing vessel has a fire detection and alarm system
Automatic Fire Detection and Fire Alarm System (8.18)

Fire detection for vessels < 12 M:

- Alarm and detection panel specifications
- Heat and smoke detection in the following spaces: accommodations, sleeping quarters and service space
- Heat detection hard wire system for the machinery spaces
- Panel located in control station, activate audible and visual alarm
- Detection device locations and specifications onboard vessels are defined

Fire detection for vessels > 12 M:

- Shall have call points installed throughout the accommodations, service and machinery spaces
- System shall have a signal or tone within the compartment or space
- PA system shall automatically silence the audible during a voice communication
- Panel located in the main control station
- Two power sources, one is an emergency power source
- Zone system shall not cover more than one deck within accommodations, sleeping quarter or service space
- Addressable system loop shall be divided into sections and shall at first alarm, prevent any subsequent alarms
Public Address System (8.19)

**Present requirements:**
- All vessels, no requirements

**Proposed requirements:**
- Vessels < 24M, a public address system will be required if the vessels layout restricts the use communication between people by direct oral communication

**Impact:**
- High, generally no fishing vessel has a public address system.

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Public Address System (8.19)

**General requirements:**
- Means of communication throughout the vessel
- Panel adjacent to fire panel and above the uppermost continuous deck
- May be used as a general alarm system under certain conditions
- Two power sources required and one is an emergency source
Thanks

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