(b) An engine water cooling system on a vessel of not more than 19.8 meters (65 feet) in length, carrying not more than 12 passengers, may comply with the requirements of ABYC P-4 (incorporated by reference; see 46 CFR 175.600) instead of the requirements of paragraph (a) of this section.

c) On a vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers, a propulsion gasoline engine may be air cooled when in compliance with the requirements of ABYC P-4.

d) An auxiliary gasoline engine may be air cooled when:
   (1) It has a self-contained fuel system and it is installed on an open deck; or
   (2) On a vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers, it is in compliance with the requirements of ABYC P-4.

e) A propulsion or auxiliary diesel engine may be air cooled or employ an air cooled jacket water radiator when:
   (1) Installed on an open deck and sufficient ventilation for machinery cooling is available;
   (2) Installed in an enclosed or partially enclosed space for which ventilation for machinery cooling is provided, which complies with the requirement of §182.465(b), and other necessary safeguards are taken so as not to endanger the vessel; or
   (3) Installed on a vessel of not more than 19.8 meters (65 feet) in length carrying not more than 12 passengers, in compliance with the requirements of ABYC Project P-4.


§ 182.425 Engine exhaust cooling.

(a) Except as otherwise provided in this paragraph, all engine exhaust pipes must be water cooled.
   (1) Vertical dry exhaust pipes are permissible if installed in compliance with §§177.405(b) and 177.970 of this chapter.
   (2) Horizontal dry exhaust pipes are permitted only if:
      (i) They do not pass through living or berthing spaces;
      (ii) They terminate above the deepest load waterline;
      (iii) They are so arranged as to prevent entry of cold water from rough or boarding seas;
      (iv) They are constructed of corrosion resisting material at the hull penetration; and
      (v) They are installed in compliance with §§177.405(b) and 177.970 of this chapter.
   (2) Horizontal dry exhaust pipes are permitted only if:
      (i) They do not pass through living or berthing spaces;
      (ii) They terminate above the deepest load waterline;
      (iii) They are so arranged as to prevent entry of cold water from rough or boarding seas;
      (iv) They are constructed of corrosion resisting material at the hull penetration; and
      (v) They are installed in compliance with §§177.405(b) and 177.970 of this chapter.
   (b) The exhaust pipe cooling water system must comply with the requirements of this paragraph.
   (1) Water for cooling the exhaust pipe must be obtained from the engine cooling water system or a separate engine driven pump.
   (2) Water for cooling the exhaust pipe, other than a vertical exhaust,
(3) The part of the exhaust system between the point of cooling water injection and the engine manifold must be water-jacketed or effectively insulated and protected in compliance with §§177.405(b) and 177.970 of this chapter.

(4) Vertical exhaust pipes must be water-jacketed or suitably insulated as required by §182.430(g).

(5) When the exhaust cooling water system is separate from the engine cooling water system, a suitable warning device, visual or audible, must be installed at the operating station to indicate any reduction in normal water flow in the exhaust cooling system.

(6) A suitable hull strainer must be installed in the circulating raw water intake line for the exhaust cooling system.

(c) Engine exhaust cooling system built in accordance with the requirements of ABYC P–1 (incorporated by reference; see 46 CFR 175.600) will be considered as meeting the requirements of this section.

§ 182.435 Integral fuel tanks.

(a) Gasoline fuel tanks must be independent of the hull.

(b) Diesel fuel tanks may not be built integral with the hull of a vessel unless the hull is made of.