(1) It meets the design requirements in §162.050–33 and is tested in accordance with this subpart;

(2) The oil content of each sample taken during approval testing is 15 ppm ± 5 ppm;

(3) Its response time is five seconds or less; and

(4) Any substance used in operating the alarm that requires certification under part 147 of this chapter as an article of ships' stores or supplies has been certified.

[44 FR 53359, Sept. 13, 1979, as amended by CGD 82–063b, 48 FR 4783, Feb. 3, 1983; 48 FR 45114, Oct. 3, 1983; CGD 88–070, 53 FR 34537, Sept. 7, 1988; CGD 95–072, 60 FR 50467, Sept. 29, 1995; CGD 96–041, 61 FR 50734, Sept. 27, 1996; USCG–1999–6216, 64 FR 53228, Oct. 1, 1999; USCG 2001–10224, 66 FR 48621, Sept. 21, 2001; USCG–2007–29018, 72 FR 53967, Sept. 21, 2007; USCG–2004–18939, 74 FR 3383, Jan. 16, 2009; USCG–2009–0702, 74 FR 49238, Sept. 25, 2009]

§162.050–9 Test report.

(a) A report of approval testing must contain the following:

(1) Name of the testing facility.

(2) Name of the applicant.

(3) Date of receiving the item for testing and the dates of the tests conducted.

(4) Trade name and brief description of the item.

(5) A listing of the following properties of the test oils used:

(i) Relative density at 15 °C.

(ii) Viscosity in centistokes at 37.8 °C.

(iii) Flashpoint.

(iv) Weight of ash content.

(v) Weight of water content.

(vi) Relative density at 15 °C. the of water used during testing and the weight of solid content in the water.

(vii) The data recorded during each test.

(6) A statement that the lab followed the testing procedures prescribed in 46 CFR subpart 162.050.

(b) [Reserved]

[CGD 76–088a, 44 FR 53359, Sept. 13, 1979, as amended by USCG–2004–18939, 74 FR 3383, Jan. 16, 2009]

§162.050–11 Marking.

(a) Each separator, oil content meter, and bilge alarm manufactured under Coast Guard approval must be plainly marked by the manufacturer with the information listed in paragraph (b) of this section. The marking must be securely fastened to the item.

(b) Each marking must include the following information:

(1) Name of the manufacturer.

(2) Name or model number of the item.

(3) If the item is a separator, the maximum throughput and the maximum influent pressure at which the separator is designed to operate.

(4) The month and year of completion of manufacture.

(5) The manufacturer's serial number for the item.

(6) The Coast Guard approval number assigned to the item in the certificate of approval.

(7) A list of bilge cleaners, solvents, and other chemical compounds that do not impair operation of the item.

(8) If the item is an oil content meter, the oils for which use has been approved.

(9) If the item is a separator that uses replaceable filter or coalescer elements, the part numbers of the elements.

[CGD 76–088a, 44 FR 53359, Sept. 13, 1979, as amended by USCG–2004–18939, 74 FR 3383, Jan. 16, 2009]

§162.050–13 Factory production and inspection.

(a) Equipment manufactured under Coast Guard approval must be of the type described in the current certificate of approval issued for the equipment.

(b) Equipment manufactured under Coast Guard approval is not inspected on a regular schedule at the place of manufacture. However, the Commanding Officer, USCG Marine Safety Center, may detail Coast Guard personnel at any time to visit a factory where the equipment is manufactured to conduct an inspection of the manufacturing process.

[44 FR 53359, Sept.13, 1979, as amended by USCG 2001–10224, 66 FR 48621, Sept. 21, 2001]

§162.050–15 Designation of facilities.

(a) Each request for designation as a facility authorized to perform approval

tests must be submitted to the Commandant (CG–5213), Systems Engineering Division, 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

(b) Each request must include the following:

(1) Name and address of the facility.

(2) Each type of equipment the facility proposes to test.

(3) A description of the facility's capability to perform approval tests including detailed information on the following:

(i) Management organization including personnel qualifications.

(ii) Equipment available for conducting sample analysis.

(iii) Materials available for approval testing.

(iv) Each of the facility's test rigs, if any.

(c) The Coast Guard reviews each request submitted to determine whether the facility meets the requirements of paragraphs (g)(1) through (g)(4) of this section.

(d) If the facility meets the requirements in paragraphs (g)(1) through (g)(4) of this section, they must obtain 12 samples containing mixtures of oil in water that are within a 10-to-30 ppm range that can be verified by an independent third-party source mutually acceptable to the applying lab and the Coast Guard prior to verification.

(e) The facility must measure the oil content of each sample using the method described in §162.050–39 and report the value of each of the 12 measurements to the Commandant (CG–5213), Systems Engineering Division, 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

(f) The measurements must meet the following criteria:

(1) Except as provided in paragraph (f)(2) of this section, the absolute value of Tn for each measurement, as determined by the American Society for Testing and Materials, ''Standard Practice for Determination of Precision and Bias of Methods of Committee D–19 on Water'', D 2777 (incorporated by reference, see §162.050–4), must be less than or equal to 2.29 at a confidence level of 0.05.

(2) The absolute value of Tn for one measurement may exceed 2.29 if the Tn values for the other eleven measurements are less than or equal to 2.23 at a confidence level of 0.05. If the Tn value for one measurement exceeds 2.29, that measurement is not used in the method described in paragraph (f)(3) of this section.

(3) The absolute value of X_d must be smaller than u based on the following analysis of paired observations:

(i) Calculate the value of $\bar{X}_d$ and S_d. This is the mean and standard deviation, respectively, of the differences between the known sample concentrations and the values obtained by the facility with their equipment. The value of $\bar{X}_d$ for the 12 measurements described in paragraph (e) of this section, or for 11 measurements if paragraph (f)(2) of this section applies, must be within the range $1 \leq \bar{X}_d \leq +1$.

(ii) Determine the appropriate critical value of the Student's t-distribution with (n-1) degrees of freedom for a confidence level of $\alpha = 0.01$. If all 12 samples meet the criteria of paragraph (f)(1) of this section then (n-1) = 11 and the critical value,

$$t_{1-\frac{\alpha}{2}},$$

is 3.106. If paragraph (f)(2) of this section applies, then (n-1) = 10 and

$$t_{1-\frac{\alpha}{2}} = 3.169.$$

=3.169.

(iii) Compute the value of u, where

$$u = t_{1-\frac{\alpha}{2}}\left(\frac{s_d}{\sqrt{n}}\right),$$

where n = 12 if all samples meet the criteria of paragraph (f)(1) and n = 11 if paragraph (f)(2) applies.

(iv) Compare the absolute value of $\bar{X}_d$ to the value of u. If $|\bar{X}_d| < u$, then the facility meets the criteria.

(g) To obtain authorization to conduct approval tests—

(1) A facility must have the management organization, equipment for conducting sample analysis, and the materials necessary to perform the tests;

(2) Each facility test rig must be of a type described in §162.050–17 or §162.050–19;

(3) The loss or award of a specific contract to test equipment must not be a substantial factor in the facility's financial well being;

(4) The facility must be free of influence and control of the manufacturers, suppliers, and vendors of the equipment; and

(5) The oil content measurements submitted to the Commandant must meet the criteria in paragraph (f) of this section.

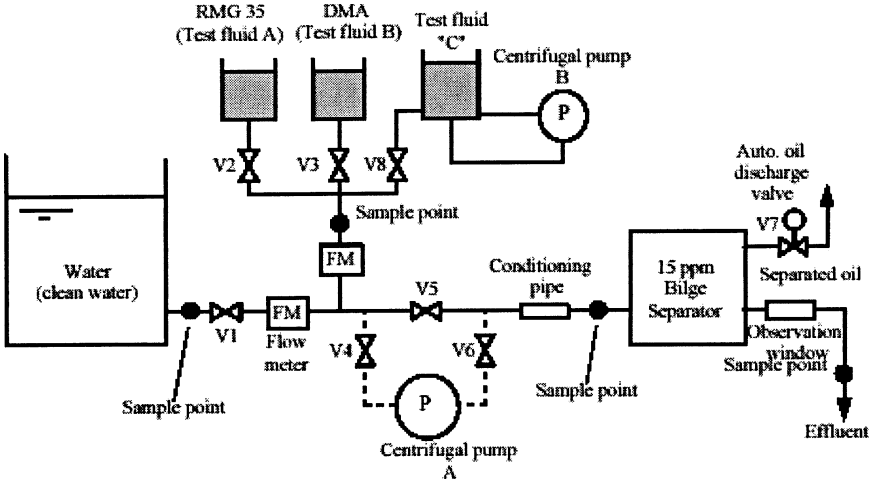
(h) A facility may not subcontract for approval testing unless previously authorized by the Coast Guard. A request for authorization to subcontract must be sent to the Commandant (CG-5213), Systems Engineering Division, 2100 2nd St., SW., Stop 7126, Washington, DC 20593–7126.

[44 FR 53359, Sept. 13, 1979, as amended by CGD 82–063b, 48 FR 45114, Oct. 3, 1983; CGD 88–070, 53 FR 34537, Sept. 7, 1988; CGD 95–072, 60 FR 50467, Sept. 29, 1995; CGD 96–041, 61 FR 50734, Sept. 27, 1996; USCG–1999–5151, 64 FR 67185, Dec. 1, 1999; USCG 2001–10224, 66 FR 48621, Sept. 21, 2001; USCG–2007–29018, 72 FR 53968, Sept. 21, 2007; USCG–2004–18939, 74 FR 3383, Jan. 16, 2009; 74 FR 6358, Feb. 9, 2009; USCG–2009–0702, 74 FR 49238, Sept. 25, 2009]

§ 162.050–17 Separator test rig.

(a) This section contains requirements for test rigs used in approval testing of separators. A diagram of a typical test rig is shown in Figure 162.050–17(a).

FIGURE 162.050–17(a)—SEPARATOR TEST RIG



(b) Each mixture pump on a test rig must—

(1) Be a centrifugal pump capable of operating at 1,000 revolutions per minute or more;

(2) Have a delivery capacity of at least 1.5 times the maximum throughput at which the separator being tested is designed to operate;

(3) Have a maximum delivery pressure that is equal to or greater than the maximum influent pressure at which the separator is designed to operate; and

(4) Have either bypass piping to its suction side or a throttle valve or orifice on its discharge side.

(c) The inlet piping of the test rig must be sized so that—

(1) Influent water flows at a Reynolds Number of at least 10,000;

(2) The influent flow rate is between one and three meters per second; and

(3) Its length is at least 20 times its inside diameter.