



ABYC A-14 July, 2015

**Equipment Division Standard
Gas Detectors Project Technical
Committee**

The ABYC Standards and Technical Information Reports for Small Craft are the product of a consensus of representatives of government, industry and public sectors. It is intended solely as a guide to aid manufacturers and the marine community in the design, construction, equipage and maintenance of small craft.

ABYC reviews each standard at least every five years at which time it may be reaffirmed, revised, or withdrawn. ABYC welcomes any written comments on the Standards and Technical Information Reports.

ABYC A-14

GASOLINE AND PROPANE DETECTION SYSTEMS

This is a preview of "ABYC A-14-2015". [Click here](#) to purchase the full version from the ANSI store.

GAS DETECTORS PROJECT TECHNICAL COMMITTEE

Tom Marhevko, Chairman

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Lou Novak
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This list represents the membership at the time the Committee was balloted.

NOTE: Membership on a committee shall not in and of itself constitute an endorsement of ABYC or any document developed by the committee on which the member serves.

This standard was developed under procedures accredited as meeting the criteria for American National Standards. The Project Technical Committee that approved the standard was balanced to ensure that individuals from competent and concerned interests have had an opportunity to participate.

This standard, which is the result of extended and careful consideration of available knowledge and experience on the subject, is intended to provide minimum performance requirements.

ABYC's Project Technical Committee meetings are open to the public. All inquiries regarding standards activity, interpretations, or meeting attendance should be directed to the ABYC Technical Department at comments@abycinc.org.

ABYC and its committees do not "approve", "certify", or "endorse" any item, construction, or proprietary device.

REQUEST FOR INTERPRETATIONS

Upon written request the Gas Detectors PTC will render an interpretation of any requirement of the standard. The request for interpretation should be clear and unambiguous. Requests should be presented to the PTC in a manner in which they may be answered in a yes or no fashion.

The committee reserves the right to reconsider any interpretation when or if additional information which might affect it becomes available to the PTC. Persons aggrieved by an interpretation may appeal to the Committee for reinterpretation.

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A-14 GASOLINE AND PROPANE GAS DETECTION SYSTEMS

Based on ABYC's assessment of the existing technology, and the problems associated with achieving the goals of this standard, ABYC recommends compliance with this standard for all boats, associated equipment, and systems manufactured after July 31, 2016.

14.1 PURPOSE

These standards are guides for the design, construction, and installation of gasoline and propane gas detection and indicating equipment on boats.

14.2 SCOPE

This standard applies to gasoline and propane gas detection systems when installed on boats.

14.3 REFERENCES

The following references form a part of this standard. Unless otherwise noted the latest version of the referenced standards shall apply.

14.3.1 ABYC – American Boat & Yacht Council, Inc., 613 Third St., Annapolis, MD 21403. Phone: (410) 990-4460. Fax: (410) 990-4466. Website: www.abycinc.org.

[ABYC E-11, AC & DC Electrical Systems on Boats](#)

14.3.2 UL – Underwriters Laboratories, 333 Pfingsten Road, Northbrook, IL 60062-2096. Obtain standards from global Engineering Documents, Inc., 15 Inverness Way East, Englewood, CO 80112. Phone: (800) 854-7179 (US and Canada), (303) 397-7956 (outside US and Canada), Fax: (303) 397-2740. Website: www.ul.com.

UL 1110, *Marine Combustible Gas Detectors*

14.4 DEFINITIONS

For the purposes of this standard, the following definitions shall apply.

14.4.1 Combustible – Capable of burning, generally in air, under normal conditions of ambient temperature and pressure.

14.4.2 Detector – An electronic device, with or without an integral sensor, designed to analyze a gaseous mixture of either liquefied petroleum gas (LPG) or gasoline at the sensing element to determine the presence of the gasses before they reach some established level below the lower explosive limit of the gas or vapor.

14.4.3 Explosive range – The limits of concentration of a flammable gas or vapor (% by volume in air) in which explosion can occur upon ignition in a confined area.

14.4.4 Flammable – Capable of burning with a flame.

14.4.5 Ignition – The process of initiating self-sustained combustion.

14.4.6 Lower explosive limit – The lowest concentration of a gas or vapor in air that will burn or explode.

14.4.7 Sensing element – The element of a gas/vapor detector that is designed to be placed where the gas or vapor is to be analyzed.

14.4.8 Upper explosive limit – The highest concentration of a gas or vapor in air that will burn or explode.

14.5 GENERAL REQUIREMENTS

14.5.1 Detectors shall be designed for continuous operation.

14.5.2 Detectors shall not shut down the main propulsion engine.