CAN/ULC-S656:2024

OIL-WATER SEPARATORS

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The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for the particular application.

Copies of this National Standard of Canada may be ordered from ULC Standards.

CETTE NORME NATIONALE DU CANADA EST DISPONIBLE EN VERSIONS FRANÇAISE ET ANGLAISE

Standard for Oil-Water Separators, CAN/ULC-S656

Second Edition, Dated July 1, 2014

Summary of Topics

The revision of CAN/ULC-S656 dated January 5, 2024 includes a Scope Clarification; Section 1.1, Section 1.5, and Section 1.6.

Text that has been changed in any manner or impacted by ULSE's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated May 26, 2023 and November 13, 2023.

PLEASE NOTE THAT CERTAIN CODES MAY REFER TO A SUPERSEDED VERSION OF THIS STANDARD. IN THOSE INSTANCES, THE RELEVANT VERSIONS ARE AVAILABLE FOR PURCHASE.

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CAN/ULC-S656:2024

OIL-WATER SEPARATORS

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Revision . . . . . .March 2019
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PREFACE

This is the Second Edition of the Standard for Oil-Water Separators, CAN/ULC-S656.

This Edition of the Standard has been formally approved by the ULC Standards Committee on Oil-Water Separators.

This Standard has been developed in compliance with the requirements of Standards Council of Canada (SCC) for accreditation of a Standards Development Organization.

Only metric SI units of measurement are used in this Standard. If a value for measurement is followed by a value in other units in parentheses, the second value may be approximate. The first stated value is the requirement.

Appendix A, identified as Normative, forms a mandatory part of this Standard.

Appendix B, identified as Informative, is for guidance and information purposes only.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

This Second Edition National Standard of Canada is based on, and now supersedes, the First Edition.

Attention is drawn to the possibility that some of the elements of this Canadian standard may be the subject of patent rights. ULC Standards shall not be held responsible for identifying any or all such patent rights.

Requests for interpretation of this Standard should be sent to ULC Standards. The requests should be worded in such a manner as to permit a “yes” or “no” answer based on the literal text of the requirement concerned.

This CAN/ULC-S656 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

Comments or proposals for revisions on any part of the Standard may be submitted at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

This Standard is intended to be used for conformity assessment.

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1 SCOPE

1.1 This Standard provides minimum requirements for shop fabricated single-wall or double-wall *oil-water separators* intended to collect and separate *free oil* from water by gravity separation at an inlet *free oil* concentration not exceeding 2 000 mg/L.

NOTE: Includes separators intended to collect and separate rainwater or wastewater containing free oil.

1.2 These *oil-water separators* are also installed for the capture and retention of oil *spills* under dry weather conditions up to the *free oil* retention capacity of the *oil-water separator*.

1.3 These *oil-water separators* are intended for installation and operation in accordance with, but not limited to, the following:

A Manufacturer's instructions;

B CCME PN 1326, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products;

C CPPI Code of Practice for Management of Water Effluent Quality at Petroleum Storage and Distribution Facilities; and

D Regulations of the *authority having jurisdiction*.

NOTE 1: Collection and disposal of the *effluent*, *free oil*, and separated *solids* from *oil-water separators* is beyond the scope of this document. Consult the *authority having jurisdiction* for disposal requirements for these substances.

NOTE 2: The accumulated *solids* are to be removed as recommended in the Manufacturer's Operation and Maintenance Instructions to ensure no adverse effect on the performance of the *oil-water separator*.

1.4 The requirements of this Standard apply to all *oil-water separators*. Users are advised that the requirements of *AHJs* may impose additional performance and testing criteria beyond those described in this document.

1.5 Except for optional Climate Change Adaptation requirements in Appendix B, which includes optional construction and/or performance requirements, and associated ratings intended to address more severe conditions associated with the effects of Climate Change, these requirements do not cover special evaluations for resistance to, or use after, earthquakes, floods, high wind events, or other natural disasters.

NOTE 1: See the Note at the beginning of Appendix B for further information on the terms "Adaptation" and "Mitigation", as they pertain to Climate Change.

1.6 These requirements do not cover grease interceptors. Refer to the CSA B481 series of standards for grease interceptors which are utilized in sanitary drainage systems for the interception of non-soluble organic fats, oils, and greases from animal or vegetable sources.

2 REFERENCE PUBLICATIONS

2.1 The documents shown below are referenced in the text of this Standard. Unless otherwise stated elsewhere in this Standard such reference shall be considered to indicate the edition and/or revisions of the document available at the date on which the Committee approved this ULC Standard.

Documents Published by the American Society for Testing and Materials (ASTM)
100 Barr Harbour Drive, PO Box C700, West Conshohocken, PA 19428-2959 U.S.A.

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Telephone: (610) 832-9585
www.astm.org

• ASTM B117-11, Standard Practice for Operating Salt Spray (Fog) Apparatus

• ASTM C581-03 (R2008), Standard Practice for Determining Chemical Resistance of Thermosetting Resins used in Glass Fiber Reinforced Structures Intended for Liquid Service

• ASTM D471-12, Standard Test Method for Rubber Property - Effect of Liquids

• ASTM D790-10, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Material

• ASTM D6751-12, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels

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Published Jointly by American Public Health Association (APHA), American Water Works Association and Water Environment Federation
800 I Street, N.W., Washington, DC 20001
Telephone: (202) 777-2742

• SME, 2012, Standard Methods for the Examination of Water and Wastewater

NOTE: This document is also identified as AWWA 10084, published by the American Waste Water Association.

Published by Canadian Council of Ministers of the Environment (CCME)
c/o Manitoba Statutory Publications, Lower Level,
200 Vaughan Street, Winnipeg, MB R3C 1T5
Telephone: (204) 945-4664

• CCME PN 1326 UPD 2013, Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products

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Standards published by the Canadian General Standards Board (CGSB)
Place du Portage III, 6B1, 11 Laurier Street, Gatineau, Quebec K1A AG6
Telephone: (819) 956-0425
www.tpsgc-pwgsc.gc.ca/cgsb

• CAN/CGSB 3.2-2011, Heating Fuel Oil

• CAN/CGSB 3.6-2000, Regular Sulphur Diesel Fuel; Amendment 1: March 2004; Amendment 2: September 2004

Published by Canadian Petroleum Products Institute (CPPI)
1000 – 275 Slater, Ottawa, ON K1P 5H9
Telephone: (613) 232-3709

• Code of Practice for Management of Water Effluent Quality at Petroleum Storage and Distribution Facilities

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Published by the Ontario Ministry of Environment (MOE)
135 St. Clair Ave. W., Toronto, ON M4V 1P5
Telephone (416) 323-4321

• Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater

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Documents Published by Underwriters Laboratories of Canada (ULC)
7 Underwriters Road, Toronto, ON M1R 3B4 Canada
Telephone: (416) 757-3611 or 1-866-9373-ULC
www.ulc.ca

• CAN/ULC-S603-00, Standard for Steel Underground Tanks for Flammable and Combustible Liquids

• CAN/ULC-S615-14, Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids

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Documents Published by ULC Standards
171 Nepean Street, Suite 400, Ottawa, ON K2P 0B4 Canada
Telephone: (416) 757-3611, ext. 61744; Fax (613) 231-5977, “ATTN: Publications”
E-mail: publications@ulc.ca
www.ulc.ca

• CAN/ULC-S601-14, Standard for Shop Fabricated Steel Aboveground Tanks for Flammable and Combustible Liquids

• CAN/ULC-S603.1-11, Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids

• ULC/ORD-C142.15-14, Precast Concrete Tanks

• ANSI/CAN/UL/ULC 1316:2018, Standard for Fibre Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids

NOTE: Subsequent to the publication of the Second Edition of CAN/ULC-S656 in 2014, the Third Edition of CAN/ULC-S615 was superseded by the Third Edition of ANSI/CAN/UL/ULC 1316. However, both are acceptable base tanks.

3 GLOSSARY

NOTE: Terms used in this Standard that are in *italic* print are defined as follows:

3.1 *ASTM IRM 903 / IRM 903* – A high swelling petroleum based oil described in ASTM D471, Standard Test Method for Rubber Property - Effect of Liquids

3.2 *AUTHORITY HAVING JURISDICTION (AHJ)* – The governmental body responsible for the enforcement of any part of this Standard or the official or agency designated by that body to exercise such a function.

3.3 *EFFLUENT* – The water/*hydrocarbon* mixture exiting the *oil-water separator*.

3.4 *FREE OIL* – Non-soluble, *non-emulsified hydrocarbons* with specific gravity between 0.82 and 0.88.

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