



Standard Specification for Shipboard Incinerators¹

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1. Scope

1.1 This specification covers the design, manufacture, performance, operation, functioning, and testing of incinerators intended to incinerate garbage and other shipboard wastes generated during the ship's normal service (that is, maintenance, operational, domestic, and cargo-associated wastes).

1.2 This specification is a companion document to Guide F 1322.

1.3 This specification applies to those incinerator plants with capacities up to 1500 kW per unit.

1.4 Additional information is given in Appendixes Appendix X1-Appendix X5.

1.5 This specification does not apply to systems on special incinerator ships, for example, for burning industrial wastes such as chemicals, manufacturing residues, and so forth.

1.6 This specification does not address the electrical supply to the unit, nor the foundation connections and stack connections.

1.7 This specification does not cover emissions requirements.

1.8 *This standard does not purport to address all of the safety concerns associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* See 4.8.

2. Referenced Documents

2.1 ASTM Standards:

F 1322 Guide for Selection of Shipboard Incinerators²

2.2 ANSI Standard:

B 31.1 Power Piping³

ANSI/NFPA No. 70 National Electrical Code³

Article 430-7³

2.3 ASME Boiler and Pressure Vessel Code:

Section I, Power Boilers⁴

Section IX, Welding and Brazing Qualification⁴

¹ This specification is under the jurisdiction of ASTM Committee F-25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.06 on Marine Environmental Protection.

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² *Annual Book of ASTM Standards*, Vol 01.07.

³ Available from the American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

⁴ Available from the American Society of Mechanical Engineers, 345 E. 47th St., New York, NY 10017.

2.4 Underwriter's Laboratory Standards:

UL 506 Standard for Specialty Transformers⁵

UL 814 Standard for Gas-Tube Signs and Ignition Cables⁵

2.5 Safety of Life at Sea Convention:

SOLAS 74 International Convention for the Safety of Life at Sea³

2.6 Other Documents:

International Convention for the Preventing of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78)⁶

NOTE 1—Incinerators designed and manufactured in accordance with alternative standards must show compliance with this specification.

3. Terminology

3.1 Definitions:

3.1.1 *cargo-associated waste*—all materials that have become wastes as a result of use on board a ship for cargo stowage and handling. Cargo-associated waste includes but is not limited to dunnage, shoring pallets, lining and packing materials, plywood, paper, cardboard, wire, and steel strapping.

3.1.2 *cargo residues*—for the purposes of this specification, the remnants of any cargo material on board that cannot be placed in proper cargo holds (loading excess and spillage) or which remain in cargo holds and elsewhere after unloading procedures are completed (unloading residual and spillage). However, cargo residues are expected to be in small quantities.

3.1.3 *domestic waste*—all types of food wastes, sewage, and wastes generated in the living spaces on board the ship.

3.1.4 *fishing gear*—any physical device or part thereof or combination of items that may be placed on or in the water with the intended purpose of capturing, or controlling for subsequent capture, living marine or freshwater organisms.

3.1.5 *food wastes*—any spoiled or unspoiled victual substances, such as fruits, vegetables, dairy products, poultry, meat products, food scraps, food particles, and all other materials contaminated by such wastes, generated aboard ship, principally in the galley and dining areas.

3.1.6 *garbage*—all kinds of victual, domestic, and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the ship and liable to be disposed of continuously or periodically. Those substances

⁵ Available from Underwriter's Laboratories, Inc., 333 Pfingsten Rd., Northbrook, IL 60062.

⁶ Available from the International Maritime Organization, 4 Albert Embankment, London SE1 7SR, UK.