

### Subpart T—Radiotelephone Installation Required for Vessels on the Great Lakes

#### § 80.951 Applicability.

The Agreement Between the United States of America and Canada for Promotion of Safety on the Great Lakes by Means of Radio, 1973, applies to vessels of all countries when navigated on the Great Lakes. The Great Lakes Radio Agreement defines the Great Lakes as “all waters of Lakes Ontario, Erie, Huron (including Georgian Bay), Michigan, Superior, their connecting and tributary waters and the River St. Lawrence as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada,” but does not include such of the connecting and tributary waters as may be specified in the Technical Regulations. The Technical Regulations do not include any connecting and tributary waters except the St. Mary’s River, the St. Clair River, Lake St. Clair, the Detroit River and the Welland Canal. A vessel to which the Great Lakes Radio Agreement applies and which falls into the specific categories by paragraph (a), (b) or (c) of this section and not excepted by paragraph (d) or (e) of this section must comply with this subpart while navigated on the Great Lakes.

(a) Every vessel 20 meters (65 feet) or over in length (measured from end to end over the deck, exclusive of sheer).

(b) Every vessel engaged in towing another vessel or floating object, except:

(1) Where the maximum length of the towing vessel, measured from end to end over the deck exclusive of sheer, is less than 8 meters (26 feet) and the length or breadth of the tow, exclusive of the towing line, is less than 20 meters (65 feet);

(2) Where the vessel towed complies with this subpart;

(3) Where the towing vessel and tow are located within a booming ground (an area in which logs are confined); or

(4) Where the tow has been undertaken in an emergency and neither the towing vessel nor the tow can comply with this part.

(c) Any vessel carrying more than six passengers for hire.

(d) The requirements of the Great Lakes Radio Agreement do not apply to:

(1) Ships of war and troop ships;

(2) Vessels owned and operated by any national government and not engaged in trade.

(e) The Commission may if it considers that the conditions of the voyage or voyages affecting safety (including but not necessarily limited to the regularity, frequency and nature of the voyages, or other circumstances) are such as to render full application of the Great Lakes Agreement unreasonable or unnecessary, exempt partially, conditionally or completely, any individual vessel for one or more voyages or for any period of time not exceeding one year.

#### § 80.953 Inspection and certification.

(a) Each U.S. flag vessel subject to the Great Lakes Agreement must have an inspection of the required radiotelephone installation at least once every 13 months. This inspection must be made while the vessel is in active service or within not more than one month before the date on which it is placed in service.

(b) An inspection and certification of a ship subject to the Great Lakes Agreement must be made by a technician holding one of the following: a General Radiotelephone Operator License, a GMDSS Radio Maintainer’s License, a Second Class Radiotelegraph Operator’s Certificate, or a First Class Radiotelegraph Operator’s Certificate. Additionally, the technician must not be the vessel’s owner, operator, master, or an employee of any of them. The results of the inspection must be recorded in the ship’s radiotelephone log and include:

(1) The date the inspection was conducted;

(2) The date by which the next inspection needs to be completed;

(3) The inspector’s printed name, address, class of FCC license (including the serial number);

(4) The results of the inspection, including any repairs made; and

(5) The inspector’s signed and dated certification that the vessel meets the requirements of the Great Lakes Agreement and the Bridge-to-Bridge

Act contained in subparts T and U of this part and has successfully passed the inspection.

(c) The vessel owner, operator, or ship's master must certify that the inspection required by paragraph (b) was satisfactory.

(d) The ship's log must be retained on-board the vessel for at least two years from the date of the inspection.

[61 FR 25807, May 23, 1996]

**§ 80.955 Radiotelephone installation.**

(a) Each U.S. flag vessel of less than 38 meters (124 feet) in length while subject to the Great Lakes Agreement must have a radiotelephone meeting the provisions of this subpart in addition to the other rules in this part governing ship stations using telephony.

(b) Each U.S. flag vessel of 38 meters (124 feet) or more in length while subject to the Great Lakes Agreement must have a minimum of two VHF radiotelephone installations in operating condition meeting the provisions of this subpart. The second VHF installation must be electrically separate from the first VHF installation. However, both may be connected to the main power supply provided one installation can be operated from a separate power supply located as high as practicable on the vessel.

(c) This paragraph does not require or prohibit the use of other frequencies for use by the same "radiotelephone installation" for communication authorized by this part.

**§ 80.956 Required frequencies and uses.**

(a) Each VHF radiotelephone installation must be capable of transmitting and receiving G3E emission as follows:

(1) Channel 16—156.800 MHz—Distress, Safety and Calling; and

(2) Channel 6—156.300 MHz—Primary intership.

(b) The radiotelephone station must have additional frequencies as follows:

(1) Those ship movement frequencies appropriate to the vessel's area of operation: Channel 11—156.550 MHz, Channel 12—156.600 MHz, or Channel 14—156.700 MHz.

(2) The navigational bridge-to-bridge frequency, 156.650 MHz (channel 13).

(3) Such other frequencies as required for the vessel's service.

(4) One channel for receiving marine navigational warnings for the area of operation.

(c) Every radiotelephone station must include one or more transmitters, one or more receivers, one or more sources of energy and associated antennas and control equipment. The radiotelephone station, exclusive of the antennas and source of energy, must be located as high as practicable on the vessel, preferably on the bridge, and protected from water, temperature, and electrical and mechanical noise.

[51 FR 31213, Sept. 2, 1986, as amended at 53 FR 17052, May 13, 1988]

**§ 80.957 Principal operating position.**

(a) The principal operating position of the radiotelephone installation must be on the bridge, convenient to the conning position.

(b) When the radiotelephone station is not located on the bridge, operational control of the equipment must be provided at the location of the radiotelephone station and at the bridge operating position. Complete control of the equipment at the bridge operating position must be provided.

**§ 80.959 Radiotelephone transmitter.**

(a) The transmitter must be capable of transmission of G3E emission on the required frequencies.

(b) The transmitter must deliver a carrier power of between 10 watts and 25 watts into 50 ohms nominal resistance when operated with its rated supply voltage. The transmitter must be capable of readily reducing the carrier power to one watt or less.

(c) To demonstrate the capability of the transmitter, measurements of primary supply voltage and transmitter output power must be made with the equipment operating on the vessel's main power supply, as follows:

(1) The primary supply voltage measured at the power input terminals to the transmitter terminated in a matching artificial load, must be measured at the end of 10 minutes of continuous operation of the transmitter at its rated power output.

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(2) The primary supply voltage, measured in accordance with the procedures of this paragraph, must be not less than 11.5 volts.

(3) The transmitter at full output power measured in accordance with the procedure of this paragraph must not be less than 10 watts.

### § 80.961 Radiotelephone receiver.

(a) The receiver must be capable of reception of G3E emission on the required frequencies.

(b) The receiver must have a sensitivity of at least 2 microvolts across 50 ohms for a 20 decibel signal-to-noise ratio.

### § 80.963 Main power supply.

(a) A main power supply must be available at all times while the vessel is subject to the requirements of the Great Lakes Radio Agreement.

(b) Means must be provided for charging any batteries used as a source of energy. A device which during charging of the batteries gives a continuous indication of charging current must be provided.

### § 80.965 Reserve power supply.

(a) Each passenger vessel of more than 100 gross tons and each cargo vessel of more than 300 gross tons must be provided with a reserve power supply independent of the vessel's normal electrical system and capable of energizing the radiotelephone installation and illuminating the operating controls at the principal operating position for at least 2 continuous hours under normal operating conditions. When meeting this 2 hour requirement, such reserve power supply must be located on the bridge level or at least one deck above the vessel's main deck.

(b) Instead of the independent power supply specified in paragraph (a) of this section, the vessel may be provided with an auxiliary radiotelephone installation having a power source independent of the vessel's normal electrical system. Any such installation must comply with §§ 80.955, 80.956, 80.957, 80.959, 80.961, 80.969 and 80.971, as well as the general technical standards contained in this part. Additionally, the power supply for any such auxiliary radiotelephone must be a "reserve

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power supply" for the purposes of paragraphs (c), (d) and (e) of this section.

(c) Means must be provided for adequately charging any batteries used as a reserve power supply for the required radiotelephone installation. A device must be provided which, during charging of the batteries, gives a continuous indication of charging.

(d) The reserve power supply must be available within one minute.

(e) The station licensee, when directed by the Commission, must prove by demonstration as prescribed in paragraphs (e)(1), (2), (3) and (4) of this section that the reserve power supply is capable of meeting the requirements of paragraph (a) of this section as follows:

(1) When the reserve power supply includes a battery, proof of the ability of the battery to operate continuously for the required time must be established by a discharge test over the required time, when supplying power at the voltage required for normal operation to an electric load as prescribed by paragraph (e)(3) of this section.

(2) When the reserve power supply includes an engine driven generator, proof of the adequacy of the engine fuel supply to operate the unit continuously for the required time may be established by using as a basis the fuel consumption during a continuous period of one hour when supplying power, at the voltage required for normal operation, to an electrical load as prescribed by paragraph (e)(3) of this section.

(3) For the purposes of determining the electrical load to be supplied, the following formula must be used:

(i) One-half of the current of the radiotelephone while transmitting at its rated output, plus one-half the current while not transmitting; plus

(ii) Current of the required receiver; plus

(iii) Current of the source of illumination provided for the operating controls prescribed by § 80.969; plus

(iv) The sum of the currents of all other loads to which the reserve power supply may provide power in time of emergency or distress.

(4) At the conclusion of the test specified in paragraphs (e) (1) and (2) of this section, no part of the reserve power

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supply must have excessive temperature rise, nor must the specific gravity or voltage of any battery be below the 90 percent discharge point.

### § 80.967 Antenna system.

The antenna must be omnidirectional, vertically polarized and located as high as practicable on the masts or superstructure of the vessel.

### § 80.969 Illumination of operating controls.

(a) The radiotelephone must have dial lights which illuminate the operating controls at the principal operating position.

(b) Instead of dial lights, a light from an electric lamp may be provided to illuminate the operating controls of the radiotelephone at the principal operating position. If a reserve power supply is required, arrangements must permit the use of that power supply for illumination within one minute.

### § 80.971 Test of radiotelephone installation.

At least once during each calendar day a vessel subject to the Great Lakes Radio Agreement must test communications on 156.800 MHz to demonstrate that the radiotelephone installation is in proper operating condition unless the normal daily use of the equipment demonstrates that this installation is in proper operating condition. If equipment is not in operating condition, the master must have it restored to effective operation as soon as possible.

## Subpart U—Radiotelephone Installations Required by the Bridge-to-Bridge Act

### § 80.1001 Applicability.

The Bridge-to-Bridge Act and the regulations of this part apply to the following vessels in the navigable waters of the United States:

(a) Every power-driven vessel of 20 meters or over in length while navigating;

(b) Every vessel of 100 gross tons and upward carrying one or more passengers for hire while navigating;

(c) Every towing vessel of 7.8 meters (26 feet) or over in length, measured

from end to end over the deck excluding sheer, while navigating; and

(d) Every dredge and floating plant engaged, in or near a channel or fairway, in operations likely to restrict or affect navigation of other vessels. An unmanned or intermittently manned floating plant under the control of a dredge shall not be required to have a separate radiotelephone capability.

[51 FR 31213, Sept. 2, 1986, as amended at 57 FR 61012, Dec. 23, 1992; 58 FR 44954, Aug. 25, 1993]

### § 80.1003 Station required.

Vessels subject to the Bridge-to-Bridge Act must have a radiotelephone installation to enable the vessel to participate in navigational communications. This radiotelephone installation must be continuously associated with the ship even though a portable installation is used. Foreign vessels coming into U.S. waters where a bridge-to-bridge station is required may fulfill this requirement by use of portable equipment brought aboard by the pilot. Non portable equipment, when used, must be arranged to facilitate repair. The equipment must be protected against vibration, moisture, temperature and excessive currents and voltages.

### § 80.1005 Inspection of station.

The bridge-to-bridge radiotelephone station will be inspected on vessels subject to regular inspections pursuant to the requirements of Parts II and III of Title III of the Communications Act, the Safety Convention or the Great Lakes Agreement at the time of the regular inspection. If after such inspection, the Commission determines that the Bridge-to-Bridge Act, the rules of the Commission and the station license are met, an endorsement will be made on the appropriate document. The validity of the endorsement will run concurrently with the period of the regular inspection. Each vessel must carry a certificate with a valid endorsement while subject to the Bridge-to-Bridge Act. All other bridge-to-bridge stations will be inspected from time to time. An inspection of the bridge-to-bridge station on a Great Lakes Agreement vessel must normally be made at the same