

Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
 )  
MCMURDO LIMITED )  
 )  
Request for Waiver to Permit Type Certification )  
of an Guardian Manoverboard (MOB) Personal )  
Emergency Position Indicating Radio Beacon at )  
121.5 MHz )

ORDER

Adopted: April 29, 2002

Released: April 30, 2002

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

1. *Introduction.* On November 2, 2001, McMurdo Limited (McMurdo) filed a request for waiver of Sections 80.1055 of the Commission's Rules<sup>1</sup> to permit type certification for a Personal Emergency Position Indicating Radio Beacon (EPIRB) operating at 121.5 MHz.<sup>2</sup> McMurdo describes its new equipment as the Guardian MOB (Manoverboard) Beacon (Guardian).<sup>3</sup> For the reasons set forth below, we grant McMurdo's request for waiver to the extent described herein.

2. *Background.* The Guardian generally meets the description of a Class B EPIRB station.<sup>4</sup> It is contained in a wristwatch and is intended to be used to alert a man overboard (MOB) occurrence and to locate personnel swept overboard in the event that he/she can no longer be tracked visually.<sup>5</sup> In this connection, McMurdo states that the Guardian is intended to be used to quickly rescue personnel in close proximity of a vessel and can either be manually activated or automatically activated upon immersion in water. Specifically, the Guardian device signals a receiver installed on the vessel's bridge to allow local search and rescue to be initiated.<sup>6</sup>

<sup>1</sup> 47 C.F.R. §§ 80.1055.

<sup>2</sup> See Letter to Public Safety and Private Wireless Division, FCC, from C.P Hoffman, Technical Director, McMurdo Limited, dated November 2, 2001 (Waiver request).

<sup>3</sup> See, e.g., Waiver request at 1.

<sup>4</sup> EPIRBs are stations in the maritime mobile service intended to facilitate search and rescue operations. See 47 C.F.R. § 80.5. A Class B EPIRB station is battery powered emergency radio transmitting device carried on vessels for use in cases of distress at sea. It is activated automatically when it floats free of a sinking ship and transmits alerting and locating signals which assist search and rescue units in responding to and finding persons in distress

<sup>5</sup> See Waiver request at 1.

<sup>6</sup> *Id.*

3. Under Section 80.1055 of the Commission Rules, EPIRB stations must meet certain technical requirements.<sup>7</sup> Absent a waiver of these standards, McMurdo's Guardian could not be type certified for operation under Part 80 of the Commission's Rules. Specifically, McMurdo seeks waiver of the applicable Part 80 provisions governing the frequency, power standards, and battery requirements<sup>8</sup> of personal EPIRBs for personnel that have fallen overboard from a vessel. On December 28, 2001, we sought comment on McMurdo's waiver request.<sup>9</sup> One party filed comments; it supported McMurdo's request for waiver.<sup>10</sup>

4. *Discussion.* Section 1.925(b)(3) of the Commission's Rules provides that we may grant a waiver if it is shown that (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and grant of the requested waiver would be in the public interest; or (b) in light of unique or unusual circumstances, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.<sup>11</sup> Based on our review and analysis of the record in this proceeding, we find that grant of the waiver requested by McMurdo is warranted under the circumstances presented. Specifically, we conclude that the underlying purpose of the subject rules would not be served by application to the instant case and grant of the requested waiver would be in the public interest.

5. In light of the record in this proceeding and our analysis thereof, we believe that a waiver of Sections 80.1055(a)(3) - (4) of the Commission's Rules would further the underlying purpose of the Commission's EPIRB rules. EPIRBs are stations in the maritime mobile service, the emissions of which are intended to facilitate search and rescue (SAR) operations.<sup>12</sup> The Commission's Rules for Class B EPIRBs envision distress signals—used to alert others of a distress situation and to assist search and rescue personnel in locating those in distress—that are intended to be received by overflying aircraft, nearby ships, and satellites. Thus, to ensure that such signals are received, the Commission's Rules require that EPIRBs have a certain transmitter output power and energy radiation characteristics. Further, in light of the fact that a long period of time may elapse before those in distress receive assistance, the Commission's Rules also require that EPIRBs have a long-lasting power supply.<sup>13</sup> Moreover, because safety of life is involved and ships travel worldwide, the Commission's Rules specify minimum operational performance standards.<sup>14</sup>

6. We note, as an initial matter, that the Guardian is not intended primarily to activate rescue operations from aircraft or other ships. Rather, the Guardian is intended to alert the home ship of a MOB occurrence and then provide an accurate and rapid means to locate personnel once an SAR operation is

---

<sup>7</sup> See 47 C.F.R. § 80.1055.

<sup>8</sup> See 47 C.F.R. §§ 80.1053(a)(3), (a)(4), (a)(6), (a)(8), (a)(10) and (a)(11), 80.1053(c), 80.1053 (e) and 80.1053(g). (These rules specify transmit frequencies, output power, battery requirements, labeling requirements and a requirement for the device to float in calm water, respectively.)

<sup>9</sup> Wireless Telecommunications Bureau Seeks Comment on McMurdo Limited Waiver Request for Type Certification of 121.5 MHz Guardian Manoverboard Personal Emergency Position Indicating Radio Beacon (EPIRB), *Public Notice*, 17 FCC Rcd 106 (2002).

<sup>10</sup> Comments were filed by Center for Maritime Leadership, Inc. No reply comments or *ex parte* submissions were filed in this matter.

<sup>11</sup> 47 C.F.R. § 1.925(b)(3). See also *WAIT Radio v FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969).

<sup>12</sup> See 47 C.F.R. § 80.5

<sup>13</sup> See 47 C.F.R. § 80.1053(e).

<sup>14</sup> See 47 C.F.R. § 80.1053.

underway. Thus, we conclude that is not necessary to require the device to have sufficient transmitter power to alert satellites, aircraft, and other ships. Also, because assistance and/or rescue is intended to be provided within minutes rather than hours, we find it appropriate under such circumstances to permit a shorter battery life. Specifically, we note that the Guardian will use a commercial 3.2-volt battery in a waterproof wristwatch that has a useful battery life guaranteed for up to eight hours of transmission time.<sup>15</sup> In this connection, we find requiring a larger, heavier battery in this instance to be unnecessary given the intended purpose of the device. We also waive the battery labeling requirements, which are intended to provide information regarding useful life of the battery stored in marine environment conditions based on the power and duration requirements.<sup>16</sup> In this regard, we conclude that such labeling is not necessary because the Guardian has limited room on the device for labeling and it will be using commercially available batteries.

7. Also, because the device is to be used for homing on persons lost overboard, we conclude that the requirement to operate on both 121.5 MHz and 243 MHz is not necessary. The 121.5 MHz frequency, in addition to being used to alert rescue forces by communicating with the satellites, aircraft and other ships, is also used in search and rescue operations as a homing frequency to find a ship in distress. The 243 MHz frequency is generally used by military organizations for distress alerting purposes; thus, we are concerned that requiring the use of 243 MHz in this specific context could cause unnecessary harmful interference to other operations on this frequency.

8. We have coordinated McMurdo's request with the U.S. Coast Guard. The Coast Guard has indicated that it does not object to our granting McMurdo's request for waiver, provided the equipment is installed in a Personal Flotation Device (PFD)<sup>17</sup> or otherwise kept with a person, and is not sold as a shipboard EPIRB or used as a personal locating beacon on land. We note that McMurdo's description of the Guardian appears to satisfy these conditions. In an effort to ensure that the Coast Guard's concerns are addressed, we believe that they should be ongoing conditions of any grant of the instant waiver. We further note, however, that the Coast Guard raises concerns that the device may cause interference to the COSPAS/SARSAT satellite system used for search and rescue. In view of these concerns, we believe that the requested use of the Guardian must be on a noninterference basis to the COSPAS/SARSAT satellite system.

9. Finally, we note that the Commission recently adopted rule revisions to phase out Class A, B and S EPIRBs.<sup>18</sup> In doing so, however, the Commission recognized that waivers have been granted to permit devices to be certified as Class B EPIRBs although they do not meet all of the technical requirements for Class B EPIRBs.<sup>19</sup> In this connection, the Commission clarified that its decision to phase out the use of Class B EPIRBs did not preclude the continued manufacture and use beyond the

---

<sup>15</sup> See Waiver request at Guardian MOB Beacon Sales Brochure Attachment, 1. The ERP is 25 mW or less. See Waiver request at 2.

<sup>16</sup> See 47 C.F.R. § 80.1053(e).

<sup>17</sup> Personal Flotation Device is marine terminology for a lifesaving device that is used to provide buoyant support for one person in the water. See generally 33 C.F.R. § 175.13.

<sup>18</sup> See Amendment of Parts 13 and 80 of the Commission's Rules concerning Maritime Communications, WT Docket No. 00-48, *Report and Order and Further Notice of Proposed Rule Making*, FCC 02-102 (rel April 9, 2002) (R&O). These rule revisions will become effective sixty days after publication in the Federal Register. *Id.* at ¶ 147.

<sup>19</sup> See R&O at ¶ 47 n. 124 citing, e.g., Briar Tek Incorporated, *Order*, DA 02-287 (WTB PSPWD rel. Feb. 7, 2002); David Marshall, *Letter*, 13 FCC Rcd 23688 (WTB 1998); Letter to Cal Havens, ACR Electronics, from D'wana R. Terry, Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, dated August 4, 2000.

specified phase-out dates of equipment that is certified in accordance with such waivers. The Commission further noted, however, that the Radio Technical Commission for the Maritime Services (RTCM) is working on EPIRB standards that may eventually be incorporated into the Rules. In this connection, the Commission further clarified that “nothing herein is intended either to enlarge the relief granted in those earlier waiver decisions or to preclude modification or termination of the waivers at some later time if such action is justified by changed circumstances, such as the RTCM’s adoption of standards for 121.5 MHz EPIRBs.”<sup>20</sup> Against this backdrop, we conclude that our grant of the instant waiver request should be subject to the same condition.

10. Accordingly, IT IS ORDERED that, pursuant to Section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and Section 1.925 of the Commission’s Rules, 47 C.F.R. § 1.925, McMurdo’s request for waiver of Sections 80.1055(a)(3)<sup>21</sup> and 80.1055(a)(4) of the Commission’s Rules, 47 C.F.R. §§ 80.1055(a)(3)(4), filed November 2, 2001, to permit type certification of it’s personal EPIRB, FCC Identification Number KLS-88-100 IS GRANTED, as described above, FOR AN INDEFINITE TERM and SUBJECT TO MODIFICATION OR TERMINATION as discussed in paragraph 9 above.

11. IT IS FURTHER ORDERED that the Guardian is installed in a PFD or otherwise kept with a person, is not sold as a shipboard EPIRB or used as a personal locating beacon on land, and use must be on a noninterference basis to the COSPAS/SARSAT satellite system.

12. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131 and 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D’wana R. Terry  
Chief, Public Safety and Private Wireless Division  
Wireless Telecommunications Bureau

---

<sup>20</sup> *R&O* at ¶ 47 n. 124.

<sup>21</sup> Section 80.1055(a)(3) provides that Class B EPIRB stations must meet the requirements of 47 C.F.R. §§ 80.1053(a) (4) through (8), (a)(14), and (c) through (i). In this connection, we are granting McMurdo’s request for waiver of the requirements of 47 C.F.R. §§ 80.1053(a)(3), (a)(4), (a)(6), (a)(8), (a)(10) and (a)(11), 80.1053(c), 80.1053 (e) and 80.1053(g).