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October 31, 2001

Federal Communications Commission
Office of Equipment and Technology (OET)
Laboratory Division

Covering Letter in support of an application for a Grant of Equipment Authorisation

FCC ID: KLS-88-100
Product Name: Guardian MOB (Manoverboard) Beacon
Form 731 Confirmation Number EA177150

Dear Sir

Please find as attachments hereto our application for a grant of Equipment Authorisation for a Marine Survivor Location Device (MSLD). The product in question is contained in a Wristwatch and in addition to working as a normal timepiece, it also contains a 121.5 MHz Transmitter for use in an emergency, which we wish to get approved under the Class B EPIRB regulations.

The complete system comprises of a very low power 121.5 MHz transmitter, the MOB Beacon, the subject of this application and a 121.5 MHz Receiver (or Direction Finder) fitted to the vessel. The 121.5 MHz Receiver (or Direction Finder) will be the subject of a totally separate application for a Grant of Equipment Authorisation under a different FCC ID number at a later date.

The operation of the system is simple, in that if the wearer of the Wristwatch MOB Beacon falls overboard then the 121.5 MHz transmitter is activated either manually or automatically. This sets off an alarm on the Receiver (or Direction Finder) on board the owners vessel alerting those on board to the situation, thereby allowing them to come about and search for the missing person. The MOB Beacon has a range of up to one nautical mile at sea and 15 miles to a SAR helicopter, the device IS NOT powerful enough to transmit a signal to orbiting Cospas-Sarsat satellites. It is thus only designed to be used as a closed loop manoverboard system, not as a traditional EPIRB and it is not an item of GMDSS equipment.

We are applying for Authorisation of the MOB Beacon as a Class B EPIRB under 47 CFR Part 80.1055, as this is the most relevant part of the rules under which we can apply for a grant of a 121.5MHz transmitter. However we are aware that the product is not fully compliant with Part 80.1055 (see later in this letter) and thus in parallel with this application we have also lodged a request for a Waiver of parts of the rules with the WTB branch of the FCC.

The MOB Beacon was designed by a company called SML Technologies Limited in the United Kingdom (originally called Safe Marine Limited) and some of the drawings still bare their name. McMurdo has an exclusive manufacturing and sales distribution License Agreement with SML and is thus now responsible for approval and sale of the product on a worldwide basis.

Supplied herewith as attachments are:

1) Family Tree Drawing No 88-100F
2) Items List No 88-100
3) Wristwatch General Assembly Drawing No GAS 6059 (4 sheets)
4) Wriststrap General Assembly Drawing No MPP 1264
5) Wristwatch Circuit Diagram Drawing No CDI 3027 (2 sheets)
6) Wristwatch Back Drawing No MPP 1263
7) Product Test Specification No PTS 3027

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Supplied herewith as attachments are (contd) :

8) User Guide for Wristwatch PLB No USG 6059
9) BABT (TuV) Test Report on Type Approval Testing to ETSI EN 300 152 Report No RM900741
10) BABT (TuV) EMC Test Report for Wristwatch GA 6059 Report No OR900741
11) DERA Statement of Opinion on GAS 6059 EPIRB in accordance with the EU R&TTE Directive
12) SML Declaration of Conformity to EU Directive 1999/5/EC
13) KEMA Certificate of Conformity for Electrical Approval for Potentially Explosive Atmospheres KEMA No Ex-01.E.1037 X
14) Sales Brochure for the Guardian MOB Beacon Wristwatch

The above documents provide details on the design and construction of the Wristwatch MOB Beacon as well as operating and test instructions. Further, details of all the product Performance and EMC tests carried out by test houses and the resultant United Kingdom type approval certificates are also included. We trust that this will prove to be sufficient information for you to assess the MOB Beacon for compliance with the requirements of 47 CFR Part 80.1055.

As stated above, we are aware of a number of areas where the MOB Beacon does not meet the requirements of Part 80.1055 and we have applied for a Waiver to cover these areas. In particular these are:

80.1055(a)(3) referenced paragraphs:

80.1053(a)(4) Only transmits on 121.5 MHz not 243 MHz as well.
80.1053(a)(6) Output power 25mW or less (depending on antenna configuration) not 75mW and battery life 8 hours not 48 hours.
80.1053(a)(8) As for (4) above only transmits on 121.5 MHz.
80.1053(c) Due to the low output power (see (6) above) the device is not satellite compatible (deliberately so).
80.1053(e) As for (6) above the output power and battery life are reduced.
80.1053(g) There is physically not enough room on the product to display the operating instructions.
80.1053(a)(10) The MOB Beacon is not designed to float in water, it is designed to be worn on the person.
80.1053(a)(11) As for (10) above the device is not ballasted as it is designed to be worn.

Fortunately there is a precedent for the above waiver, in that a similar device the Sea Marshall PLB7 (PLB8) FCC ID: NWGSMRS8 was granted type approval in 1998 under waiver number DA 98-2013 by the FCC on a similar basis to the above. We will be sending our waiver request to Jim Shaffer at the WTB next week.

If you require any further details or additional information please do not hesitate to contact us using the details provided on the Form 731 application.

Yours faithfully,

Chris Hoffman

C P Hoffman

Technical Director

McMurdo Limited