



September 11, 2017

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RE: Comments of June 09, 2017  
APPLICATION: Marine Instruments  
FCC ID: 2AEES-MPTR50

3. In a previous application from the applicant for a similar device (FCC ID:2AEESMPTR), it was stated that the “larger battery pack” for the M3P-T model, specified on p.3 of the Operational Description, does not have any greater potential or supplied power than the smaller battery pack used in the compliance testing, hence necessitating additional testing, only more storage cells. Please confirm that this remains the case in this application.

*R. Applicant Confirms. It is exactly the same; the only difference in these buoys from the previous is the frequency oscillator.*

5. Section 2.1 of the EMC report (p.8) references models M3P, M3P-T, and M3P-R, however, the remainder of the application only appears to describe models M3P and M3P-T, not the “-R”. Please revise the Operational Description to also describe the M3P-R version of the EUT, and provide additional photos, if appropriate.

*R. Applicant will submit an updated technical description. This model is a prototype under development with different external form factor with a Round housing instead of the metal tube and rubber float. That model would have exactly the same electronics as the other buoys, not including the number of storage cells in the battery pack, which could be different but with the same characteristics ... potentially differing in the number of storage cells and their packaging. We are exploring market needs in Alaskan and North Atlantic fisheries where the weather and wave conditions are extreme.*

6. The EMC report and set-up photos appear to indicate that only the M3P version of the EUT was tested. Please confirm that spurious radiated emissions were also investigated on the M3P-T version of the EUT, as the long metal pipe may adversely impact the EUT’s radiated emissions. If this was done, please revise the test report to indicate this, and state that the SRE data presented represents the worst case of all models being authorized.

*R. Per applicant "In real operations the tested electronics head with the SS tube with the batteries, are placed into a longer weighted SS tube with contact with the sea water providing a large ground plane. The weighted tube has hole that allows for the entry of sea water. So in both models, the battery casing metal housing is grounded to sea water so the actual length of the battery casing shouldn't make any difference. In that regards, it would be fair to say that testing without sea water the shorter tube model could represent the worst case"*

8. The Tune- Up Procedure indicates that the EUT's target output level is 27 dBm +/- 1.5 dB, however, section 6.3.3 (p.19) of the EMC report shows that 2 of the 3 measured channels have an output level that exceeds the target plus tolerance specified for the EUT, by up to 0.6 dB. Please confirm that the EUT was still operating in its linear region at these output levels during the compliance testing, i.e., that its final stage was not being over-driven into non-linear operation. Please note that the grant will list the highest measured output of 0.814 W.

*R. The EUT was operating in the linear range of its operating range.*