

From: OET Generic account [<mailto:oetech@fccsun34w.fcc.gov>]
Sent: Friday, April 09, 2004 5:39 PM
To: Popowitch, Daryl
Subject: audit

To: Daryl Popowitch
From: Tim Harrington
Tim.Harrington@fcc.gov
FCC Equipment Authorization Branch

Re: FCC ID: OWDTR-0020-E

Applicant: M/A-COM, Inc.
Correspondence Reference Number: 11888
731 Confirmation Number: TC974231
Date of Original Email: 04/09/2004

Subject: audit

TCB to address:

1) Grant note has "The antenna installation and operating configurations of this transmitter, including antenna gain and cable loss must satisfy MPE categorical Exclusion Requirements of 2.1091." How is this applicable? Should be removed if not applicable.

Response: TCB to address.

2) 1.1310 states occupational limits are applicable:
in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

2.1091 states:

If appropriate, compliance with exposure guidelines for devices in this section can be accomplished by the use of warning labels and by providing users with information concerning minimum separation distances from transmitting structures and proper installation of antennas.

2.1093 states:

Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.

2.1033 states:

Applications for equipment other than that operating under parts 15 and 18 of the rules shall be accompanied by a technical report containing the following information: A copy of the installation and operating instructions to be furnished the user.

Supplement C section 2 states:

In situations where a transmitter is in close proximity to the operator but nearby persons are normally further away from the device, occupational/controlled exposure limits may be applied if the exposure is work-related. Under such conditions, the operator must be aware of the exposure conditions and can exercise control to limit the exposure duration and/or conditions to satisfy compliance. Nearby persons are usually exposed to a weaker field. Since they have no knowledge of their exposure conditions, the more restrictive general population/uncontrolled exposure limits must be applied.

90.205(r) should be accounted for in MPE evaluations, i.e., compliance distances should be determined according to allowed 20% over nominal power, unless radio is documented to not support

such levels. Nominal power is to be listed on Form731 line item; grant notes can state maximum power per 90.205(r), as long as this was used in RF exposure evaluation.

Bystander MPE distance needs to be considered for back seat passengers, and trunk-mount or roof-mount only instructions should reflect this.

Grant notes, MPE exhibit, and install/use instructions should reflect compliance distance for unaware bystanders, i.e., f/1500 not f/300 limit - please revise filing accordingly.

Response: The MPE evaluations and manuals have been revised to reflect compliance distance for unaware bystanders.

3) Please revise grant note to include following or similar text: "All qualified end users of this device must receive training to have the knowledge to control their exposure conditions and/or duration to comply with Occupational /Controlled exposure limit and also have control of the exposure conditions of bystanders for complying with General Population/Uncontrolled exposure limit."

Response: TCB to address this issue.

4) If not there already, please consider to include following text or similar in user instructions: transmit only when people outside the vehicle are at least the recommended minimum lateral distance away the antenna/vehicle.

Response: The manuals were revised to include this statement in the "Caution" box immediately preceding Table 2-1.

5) Per Suppl C sect. 2, RF exposure label should be prominent. Please describe how label position is expected to accomplish awareness of exposure in typical installation conditions, or submit revised ID label location exhibit. Some higher-powered mobiles have been certified which have the occup. awareness label placed on the microphone cord.

Response: Please excuse the oversight. A label exhibit has been uploaded that shows the RF label and its placement on the microphone cord.

6) User manual states:

"2.2.2 Approved Accessories

This radio has been tested and meets the FCC RF exposure guidelines" - this may be misleading as RF exposure was not tested in this filing. Please consider to revise this, at least for future filings.

Response: This statement in the operator manual has been revised; "exposure" has been removed from the sentence.

The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information within 30 days of the original e-mail date may result in application dismissal pursuant to Section 2.917(c).

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