



Federal Communications Commission
Washington, D.C. 20554

August 6, 2001

31030/4-3-4
1300C2

Mr. Craig J. Blakeley
Alliance Law Group LLC
8614 Westwood Center Drive
Suite 450
Vienna, Virginia 22182

Dear Mr. Blakeley:

This is in reply to your petition for waiver of June 16, 2000, filed on behalf of your client, Kohler Co. Kohler requests a waiver of Part 15 of the Commission's rules to permit the authorization of its ventilating toilet kit ("device"). This device is an ultra-wideband (UWB) radar system producing an emission centered at 5800 MHz.

Specifically, you request a waiver of the prohibition against operation within the restricted bands contained in Section 15.205 of our rules. You state that the device operates at a 1 MHz pulse repetition frequency with a pulse width of 1.1 nanoseconds that results in a main lobe that is 1790 megahertz wide. Thus, the main lobe occupies the band 4905 to 6695 MHz and falls within the restricted bands 4500-5150 MHz and 5350-5460 MHz.

You also request a waiver of the limit on the peak emission level of 74 dBuV/m at 3 meters, as specified in Section 15.35 of our rules, to permit a peak emission of 114 dBuV/m at 3 meters. You state that the measured peak level, as adjusted by a pulse desensitization correction factor, is 107.3 dBuV/m at 3 meters for your device.

In support of your waiver request, you state that the device will be located inside a toilet tank that provides approximately 3 dB of attenuation to the emissions. Additional attenuation would be provided from the walls and ceiling of the building in which the toilet is installed. You also note that this type of installation should ensure that the distances to any potential victim receivers operating in the restricted bands should be quite large, on the order of a few hundred meters or greater. Further, you note that the emission from the device is broadband, which would reduce the potential interference experienced by a relatively narrowband victim receiver to a level much less than the total peak emission level. Based on these parameters, you assert that there is a low probability that interference would be caused to other radio operations.

Because the frequencies over which the device operates include several frequency bands allocated to the U.S. Government, we coordinated the waiver request with the National Telecommunications and Information Administration (NTIA). On June 5, 2001, NTIA informed us that the waiver may be granted with certain conditions. A copy of the NTIA letter setting forth the conditions is enclosed.

It is a well-established principle that the Commission will waive its rules only if it determines, after careful consideration of all pertinent factors, that such a grant would serve the public interest without undermining the policy which the rule in question is intended to serve. *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969). In discussing the treatment of requests for waivers of established rules, the court in *WAIT Radio* emphasized that the agency's discretion in applying general rules is intimately linked to the existence of "a safety valve procedure" to permit consideration of an application for exemption based on special circumstances. *Id.* Indeed, the court considered a rule most likely to be undercut if it does not take into account "considerations of hardship, equity, or more effective implementation of overall policy...." *Id.* at 1159.

We believe that the requested waiver would serve the public interest by allowing Kohler to supply a product that appears to be in public demand. Furthermore, we believe that there is a low probability that harmful interference would be caused by the indoor operation of Kohler's ventilating toilet kit. Preventing interference to other radio services is the primary purpose of the standards in Part 15. Thus, it does not appear that the requested waiver would undermine the policy of our rules.

The Commission currently is reviewing the comments and interference evaluations associated with its proposal in ET Docket No. 98-153 to permit UWB systems to operate under Part 15 of our rules. If Kohler's current equipment design is found not to comply with the UWB standards that the Commission ultimately adopts, Kohler would be prohibited from further marketing of this product upon the effective date of new rules and regulations.

Accordingly, under the authority contained in Sections 0.31(j) and 0.241(a) of the Commission's regulations, 47 CFR §§ 0.31 (j) and 0.241 (a), a waiver of the peak limit in Section 15.35(b) and of the prohibition in Section 15.205 against operation within the restricted bands is hereby granted to Kohler to permit it to market the radar system described in its petition. The device shall comply with all other applicable standards in Part 15 of our rules. This waiver is subject to the following conditions:

- 1) The waiver is limited to the ventilating toilet kit radar system described in your petition.
- 2) A grant of certification must be obtained from the Commission for the transmitter before marketing can begin.
- 3) The fundamental emission lobe shall be contained within the frequency band 4905 MHz to 6695 MHz under all operating conditions; a 1 MHz pulse repetition frequency shall be employed with a pulse width not less than 1 nanosecond; and the peak emission level shall not exceed 114 dBuV/m at 3 meters.
- 4) In addition to the standard labelling required under Parts 2 and 15, the product shall be labelled with the following statement: "This equipment is authorized under a waiver issued by the FCC. If it is determined that the operation of this equipment has

caused harmful interference to other radio operations, the operator shall immediately contact Kohler at [your telephone number]."

- 5) The equipment shall meet the other appropriate conditions stipulated in the NTLA letter of June 5, 2001. Specifically, Kohler is required to file with NTLA the operating characteristics of its tank ventilating equipment, along with the FCC ID number obtained from certification of this product with the Commission. Kohler also must mark the device only for use within a home.
- 6) This waiver shall expire four years from the date of this letter or upon the effective date of a Report and Order in ET Docket No. 98-153 addressing these issues, whichever is earlier. However, the cessation of U.S. manufacture, importation and marketing could be required at an earlier date should the Commission find that these radar systems are causing harmful interference to other radio services.

If you have any further questions, please contact John Reed at (202) 418-2455.

Sincerely,



Bruce Franca
Acting Chief
Office of Engineering and Technology

cc: William Hatch, NTLA