APPLICANT'S REQUEST FOR WAIVER

Mitutoyo America Corporation ("Mitutoyo") respectfully requests an extension of a previously issued waiver of section 15.231(a) of the Commission's rules to allow for the marketing and sale of various industrial measuring devices using an updated transmitter identified as FCC ID No. J3E06MW-TALL. Specifically, Mitutoyo seeks a waiver of the requirement in section 15.231(a) that an intentional radiator approved for operation under this section be limited to the transmission of control signals. The Commission granted a waiver of this same provision for an earlier transmitter used with various industrial measuring devices in 1994.[1] As demonstrated more fully below, the requested waiver extension is in the public interest as it will give Mitutoyo's industrial customers such as John Deere, Pratt & Whitney, Caterpillar, Cummins and Boeing continued access to these measuring devices with an up-to-date transmitter without creating harmful, impermissible interference. The originally approved transmitter is no longer manufactured.

Mitutoyo seeks equipment authorization and an extension of its 1994 waiver for a an up-to-date radio transmitter device that it intends to use with a series of industrial measuring devices, including micrometers, calipers and indicators. These measuring devices perform a quality control function by measuring certain technical specifications in the manufacturing process with exacting precision. These technical measurements are then transmitted periodically by the

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[1] *See* Letter from Richard M. Smith, Chief, Office of Engineering and Technology, to Craig J. Blakeley, counsel for MTI Corporation (November 16, 1994) (hereinafter "*1994 OET Waiver*"). A copy of this waiver is attached hereto for convenience. The 1994 waiver was issued to MTI Corporation. MTI subsequently changed its name to Mitutoyo America Corporation.

radio transmitter to a central receiver. The transmitter used with these measuring devices operates at 285.125 MHz and is capable of unidirectional data transmission up to 80 feet. The transmitter is specifically designed for operation with Mitutoyo's measuring devices and thus is used in heavy industrial, manufacturing settings.

Section 15.231 of the Commission's rules authorizes, *inter alia*, the operation of intentional radiators above 70 MHz, such as the transmitter used with Mitutoyo's measuring devices.[2] Section 15.231(a) permits intentional radiators to operate with a field strength of up to 1,250 microvolts/meter provided that the intentional radiator is restricted to the transmission of a control signal. Continuous transmissions and data transmissions, other than the transmission of recognition codes, are prohibited.[3] These limitations, in addition to the limits set forth in section 15.231(b) pertaining to field strength of emissions, were adopted in part to guard against harmful interference to other authorized radio services and Part 15 devices.[4]

As demonstrated in the application that accompanies this request for renewal of waiver, Mitutoyo's new transmitter complies with all aspects of section 15.231, except that it transmits data that includes technical measurements from the manufacturing process in addition to an identification code. However, as the Commission recognized in granting the original waiver of section 15.231(a), while the device does transmit a numerical code representing the collected data

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2 *See* 47 C.F.R. § 15.231 (2001).

3 The Commission is currently considering eliminating the prohibition on data transmission contained in section 15.231(a). *See Review of Part 15 and Other Parts of the Commission's Rules*, Notice of Proposed Rulemaking, 16 FCC Rcd. 18205 (2001) ("*Review of Part 15* "). The Commission has preliminarily concluded that this prohibition is "unnecessarily constraining and can be an impediment to the development of new types of devices." *See Review of Part 15*, ¶ 17.

4 *See Revision of Part 15 of the Rules Regarding the Operation of Radio Frequency*

measurements in addition to an identification code, the transmitted data "is indistinguishable from the identification code that is already permitted under this rule."[5] The Commission also noted that the data transmissions from the Mitutoyo transmitter occur for less than three seconds, thereby distinguishing these transmissions from the continuous transmissions prohibited in section 15.231(a). Finally, the Commission noted that the industrial setting in which the transmitter was used essentially ensured that the separation distance from other devices using the spectrum would be larger than in typical residential environments.[6]

These same factors remain applicable to the proposed transmitter included in this waiver extension request. Most importantly, there is no basis to believe that the requested extension will lead to harmful, impermissible interference. First, very few units have been or will be sold. Mitutoyo began selling various industrial measuring devices using an earlier version of this transmitter in 1995. Mitutoyo has sold approximately 1700 units that included the earlier version of the transmitter since that time and it forecasts sales of 160 units using the updated transmitter in 2002, and 240 units with the new transmitter in each of 2003 and 2004. Second, Mitutoyo has not received any interference complaints since it began selling these industrial measuring devices with the earlier version of the transmitter in early 1995. The absence of interference complaints is no surprise given that the transmissions in question occur over very short distances (less than 80 feet) within confined areas in highly industrial settings – settings

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Devices Without an Individual License, 4 FCC Rcd. 3493, 3495 (1989).

[5] *See 1994 OET Waiver* at 2.

[6] The technical information included with the application demonstrates that updated transmitter also complies with section 15.231(b)'s field strength of emissions limits.

which virtually guarantee a much larger separation distance from other devices using the radio spectrum.

For the foregoing reasons, Mitutoyo respectfully requests an extension of its section 15.231(a) waiver to permit the marketing and sale of various industrial measuring devices using an up-to-date transmitter that periodically transmits technical measurement data in addition to a control signal. Given the heavy industrial/manufacturing environment in which this proposed transmitter will operate, there is virtually no risk that an extension of the waiver will result in harmful, objectionable interference to any other devices using the radio spectrum.