Exhibit 1: Application Purpose and Operational Description

Why the STA is necessary

GE Healthcare (GEHC)[1], on behalf of the WMTS Coalition, wishes to conduct signal strength measurements to characterize propagation loss and interference effects in the 608-614 MHz WMTS band.[2] This STA will allow GEHC to establish test signal sources in the areas of operation as provided herein.

Description of the Operation and its Purpose

The Commission has recently mandated that WMTS licensees in the 608-614 MHz band must share this band with new unlicensed TV White Space (TVWS) devices at locations that are not being used by WMTS licensees.[3] The Commission has further defined a set of geographic exclusion zones to protect licensed WMTS operations based upon a combination of TVWS antenna heights and maximum transmit powers.[4] The purpose of this operation is to characterize actual propagation losses and interfering signal levels to help inform the determination of the exclusion zones using real-world measurements. GEHC and the WMTS Coalition expect to make the results of this testing available to the Commission through comments on the NPRM.

The operation will consist of establishing test transmit signals at various transmit powers (up to 36 dBm EIRP), modulations (CW and WiFi) and at various locations around hospitals with operating WMTS systems. GEHC will conduct signal strength measurements using the hospitals' distributed WMTS antenna systems.

The test transmit signal locations will be limited to the following areas of operation:

- Washington, DC (Lat: 38 53 24, Lon: -77 01 25) 60 mi radius of operation
- Harrisonburg, VA (Lat: 38 26 59, Lon: -78 52 08) 15 mi radius of operation
- Roanoke, VA (Lat: 32 16 00, Lon: -79 56 00) 15 mi radius of operation
- Boston, MA (Lat: 42 19 36, Lon: -71 09 04) 15 mi radius of operation
- Milwaukee, WI (Lat: 43 03 08, Lon: -87 57 21) 15 mi radius of operation

GEHC will select hospitals within these areas of operation to set up a test transmit signal nearby. The locations of the test transmit signals will be selected to permit signal strength

[1] GE Healthcare is filing this STA under the FRN for Marquette Medical Systems, Inc.

[2] Members of the WMTS Coalition include: The American College of Clinical Engineering, The American Society for Healthcare Engineering of the American Hospital Association (ASHE), The Association for the Advancement of Medical Instrumentation (AAMI), Cardiac Science, ECRI Institute, GE Healthcare, Mindray North America, Nihon Kohden America, Inc., Philips Healthcare, ScottCare Corporation, Spacelabs Healthcare, LLC. and VHA Center for Engineering & Occupational Safety and Health (CEOSH).

[3] *Expanding the Economic and Innovation Opportunities of Spectrum Through Incentive Auctions*, GN Docket No. 12-268, Report and Order, 29 FCC Rcd 6567 (rel. June 2, 2014) ("*Order*").

[4] *Amendment of Part 15 of the Commission's Rules for Unlicensed Operations in the Television Bands, Repurposed 600 MHz Band, 600 MHz Guard Bands and Duplex Gap, and Channel 37, and Amendment of Part 74 of the Commission's Rules for Low Power Auxiliary Stations in the Repurposed 600 MHz Band and 600 MHz Duplex Gap,* Docket No. 12-268, Notice of Proposed Rulemaking ("NPRM"), 29 FCC Rcd 12248, (rel. September 30, 2014).

measurements to be performed at the subject hospitals using the above-mentioned configurations.

GEHC will work with the subject hospitals to minimize any effects of harmful interference. GEHC will also work with ASHE to contact all hospitals within 25 miles of locations of the test signals to coordinate operation to minimize harmful interference. GEHC will provide all hospitals in the area with the following contact in case of interference ("stop buzzer"):

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