Narrative Statement

Description of Application

HNS License Sub, LLC ("Hughes") hereby requests a new earth station license for a site with a single 6.1 meter transmit/receive antenna in the 14.0-14.5 GHz and 11.7-12.2 GHz bands. This earth station will transmit a digital video broadcast to receive-only sites located in CONUS using any authorized U.S.-licensed satellite or satellites on the Permitted List.

FAA Notification

The antenna is located in a commercial area that is surrounded by several buildings which are taller than the antenna structure. The nearest building (although not the tallest) is a four level parking structure located less than 110 meters from the antenna. As the surrounding structures exceed the maximum antenna height by more than 10 meters, this antenna does not require FAA notification.

Radiation Hazard Analysis

A radiation hazard analysis was done for the 6.1 meter antenna, with a maximum possible 70 Watts of power applied at the flange, using the methodology from OET Bulletin 65. Due to uplink power control active at this location, the peak power value at the flange of 70 Watts may only be reached for short periods of time during heavy rain.

The results of this analysis, which can also be seen in Exhibit B, show that the maximum permissible exposure limit (MPE) for protection to the general public of 1 mW/cm^2 is met in the near field, transition region, far field and in the region between the reflector and the ground.

However, as is typical for all satellite antennas, the value of 1 mW/cm^2 exceeded in the volume of space between the feed horn and the reflector. This volume is at least five meters from the ground and is thus not accessible to the general public. In order to prevent exposure to radiation levels in excess of the MPE to technical personnel, these individuals are trained not to perform maintenance in front of an antenna without having verified that the transmitter has been disabled.