



STATEMENT

The Pennsylvania State University has performed all appropriate calculations per OST Bulletin No. 65, Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radio-frequency Radiation, as required for our new experimental license application.

The radar system consists of an antenna system comprised of two fixed arrays of colinear coaxial dipoles, located four feet above ground, directed 15° off zenith, with a 4° beam width and a transmitter running a maximum of 450 watts average power output and an antenna gain of 28 dB. Assuming worst-case conditions of transmitting a single beam at maximum duty cycle and power, the radar system will produce an on-axis power density that exceeds the guidelines by a factor of 900. However, the off-axis power density will only exceed the guidelines by a factor of 9.0.

To meet FCC requirements, an eight-foot-high security fence will be constructed around the antenna field, 150 feet from the center, to prohibit access by the public from the area around the antenna. Workers will not be allowed in the enclosure during the operation of the radar to further insure safety. The fence will include warning signs and security locks. The antenna will be located in the approximate middle of a large agricultural farm. Also, since the main lobe will be directed upward, the off-axis power density at the security fence will be well below the protection guidelines.

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