NORTHWEST EMC, INC.
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December 26, 2004

Dear Application Examiner:

On behalf of GE Infrastructure Security, Northwest EMC Inc is submitting this application for the Class II Permissive Change of the RCR (Range Controlled Radar) series of products, FCC ID: CGGAA2. The RCR-01 is a slight variation on the existing series of products. The explanation of those changes has been provided in a letter from the applicant. That letter is included with this exhibit. As may be referenced in the letter from the applicant, the changes would not require additional testing of conducted AC powerline emissions. With the changes described, only Field Strength of Fundamental and Field Strength of Harmonics be tested.

The technical reports and exhibits demonstrate compliance with FCC rules 47 CFR 15.249.

GE Infrastructure
Security

Differences between the production RCR versions and the RCR-01.

Summary:
The main difference in the microwave circuitry between the production RCR (Range Controlled Radar) series of products previously authorized under the original and subsequent Class II permissive changes and the RCR-01, currently seeking authorization as a Class II permissive change, is in the number and spacing of shells used for a given range.

Discussion:
The pulse repetition rate and 5.8 GHz fundamental frequency remain unchanged from our previous applications for the RCR series.

The shell locations have always been a variable and determine our range. On the 35' units we have shells at 9', 18' 27' and 35'. On the RCR-50 they are at 20', 30', 40', and 50'. On the RCR-90 they are at 60', 70', 80', and 90'. On this application, which is our shortest-range device, the ranges may be set from 2' to 8' in one-foot increments. When you look at the spectrum generated by these various units, you will see that they all look alike. The shell spacing changes only by nanoseconds between the various units.

If you were to lay the original AR435 (first of the series) microstrip circuit on top of any of the other derivative products, including the RCR-01, you would see that they are identical. The circuit changes are in the processing circuitry, and even that has changed very little.

The biggest change in the RCR-01 is that there is no optical detector included in the design. This is a microwave only product, not a dual technology design that includes an infrared detector as in the other RCR products. The housing is a complete redesign because of the lack of optics and the added robustness needed for the aircraft application.

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