American Telecommunications Certification Body Inc.
6731 Whittier Ave, McLean, VA 22101

August 5, 2003

RE: Netgear Incorporated

FCC ID: PY3-ANT24BX

After a review of the submitted information, I have a few comments on the above referenced Application.

1) The sample label shows the labeling placed on the booster/amplifier. Due to the nature of the system we would still recommend placing the label on the amplifier as well. However, the labeling should be placed on the “main control unit” as specified by 15.19(a)(4). Please note that the original FCC ID placed on the access point is no longer considered valid once the booster/amplifier has been added to the system. Please provide new labeling of the access point when sold as part of this system.
2) Please explain the use of the FCC logo on the "booster" label. It does not appear that the FCC logo is necessary on the booster/amplifier label.
3) Please confirm that this will only be sold as a system as covered by this application (Access point + Optional DC Injector + Antenna + Listed Cables + Booster/Amplifier).
4) It appears that the AC/DC adapter contains a ferrite on this cable. Please confirm.
5) The operational description contains two sections, Case 1 and Case 2. It is assumed that this device and testing will only be covered by Case 2. However the FCC ID in the operational description does not appear to match the FCC ID in this application. Please explain.
6) The schematics appear incomplete. Given that this must be approved as a system, the schematics will need to be provided for all devices in the RF TX path. This includes the access point, DC injector, and booster/amplifier. Please provide the missing schematics.
7) It appears that the external photographs show 8 different antennas, yet the application is requesting certification on 9 antennas. Please provide photographs of the missing antenna. It would also be helpful if the photographs of the antennas were labeled showing which antennas correspond to the models listed.
8) Power meters listed in the test report appear to be out of calibration (page 155). Please explain.
9) Because of the concerns with compliance regarding certain antennas and minimum cable lengths, how will these cable lengths and proper positioning be assured upon installation? It appears that this system should require professional installation to ensure the proper minimum cable lengths are used and installed properly. If the system is intended to be professionally installed, please provide a cover letter addressing the following items below. Otherwise, please explain how it is assured that the proper cable lengths are used (i.e., system only sold as a kit that includes proper cables. However what keeps the user from placing the long on the RF booster input, and the short cable on the RF booster output?).

    a) Marketing
    The device cannot be sold retail,to the general public or by mail order. It must be sold to dealers.

    b) Requires professional installation;
    - installation must be controlled.
    - installed by licensed professionals (EUT sold to dealer who hire installers)
    - installation requires special training (special programming, access to keypad, field strength measurements made) What is unique, sophisticated, complex, or specialized about your equipment which REQUIRES it to be installed by a professional installer?

    c) Application
    -The intended use is generally not for the general public. It is generally for industry/commercial use.

10) It is not clear if all connections (access point, DC injector, Booster, Antennas) are non-standard connectors. These must all be non-standard unless the system is professionally installed (see #9). Please comment.

11) The bandedge measurement above 2.4835 GHz appears that the marker 2 may not have been on the highest measurements above 2.4835 GHz bandedge. Given how close the results were (0.2 dB from the limit), please verify that the marker was correctly positioned on the highest point above 2.4835 GHz.
12) The test report appears to show data and plots up to 5 GHz. Please confirm that the device was scanned up to approximately 25 GHz. Note that from the plots provided, it appears that there may not have been the necessary dynamic range to make measurements above 5 GHz. Please explain.
13) The RF exposure information appears to be missing information regarding the 3 dBi Dipole Antenna, 4 dBi Dipole Antenna, and the 9 dBi Omni-directions triband antenna. Please add this information to the RF exposure.
14) Please provide a users manual for this system that includes proper FCC statements and RF exposure conditions.
15) It appears that the patch antennas may have been tested with the antennas laying down, which may not allow proper measurement for spurious emissions that may be emitted from the main beamwidth of the antenna (not all photographs were provided for all final configurations measured). Note that the highest fundamental measured was for the 9 dBi dipole and not the 18 dBi gain. It is expected that the highest fundamental would normally occur for the highest gain antenna. Please comment. Note that this fact could affect the bandedge and spurious emissions measured.

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Examining Engineer

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The items indicated above must be submitted before processing can continue on the above referenced application. Failure to provide the requested information may result in application termination. Correspondence should be considered part of the permanent submission and may be viewed from the Internet after a Grant of Equipment Authorization is issued.

Please do not respond to this correspondence using the email reply button. In order for your response to be processed expeditiously, you must submit your documents through the AmericanTCB.com website. Also, please note that partial responses increase processing time and should not be submitted.

Any questions about the content of this correspondence should be directed to the sender.