

Statement A

Attachment to FCC Form 302-FM for WCSP(FM)
APPLICATION FOR STATION LICENSE

Covering FCC Construction Permit 0000117797

WCSP(FM) Washington, DC - Facility ID 68950
National Cable Satellite Corporation d/b/a C-SPAN

Prepared by
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Introduction and Summary

This Statement has been prepared on behalf of *National Cable Satellite Corporation d/b/a C-SPAN*, (“C-SPAN”), licensee of Station WCSP(FM), Washington, DC. C-SPAN holds a Construction Permit, FCC File Number 0000117797, authorizing the relocation of FM Station WCSP to registered supporting structure (ASR 1051670). The construction authorized in the Construction Permit (“CP”) has now been completed. Installation and adjustment of the antenna and transmission systems necessary to operate with the authorized new facilities into the site’s FM antenna system have been accomplished. As such, this facility is now able to operate in compliance with the terms and conditions of its CP and all applicable FCC Rules and policies. *Program Test Authority* (“PTA”) is herein respectfully requested on behalf of C-SPAN.

Satisfaction of CP Conditions

The WCSP Construction Permit is subject to 5 **Special Operating Conditions**, which are discussed in the following paragraphs. *All of these Conditions have been complied with as of the filing of this Application.* Specifically:

FCC Special Operating Condition 1 stipulates that:

“BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee shall submit the results of a complete proof-of performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components. This proof-of-performance may be accomplished using the complete full size antenna, or individual bays therefrom, mounted on a supporting structure of identical dimensions and configuration as the proposed structure, including all braces, ladders, conduits, coaxial lines, and other appurtenances; or using a carefully manufactured scale model of the entire antenna, or individual bays therefrom, mounted on an equally scaled model of the proposed supporting structure, including all appurtenances. Engineering exhibits should include a description of the antenna testing facilities and equipment employed, including appropriate photographs or sketches and a description of the testing procedures, including scale factor, measurements frequency, and equipment calibration.”

The antenna that has been installed is a Shively model number 6810-4R-.85S-CF-DA 4-bay antenna with a bay spacing of 0.85 wavelengths at 90.1 MHz. The manufacturer has provided a signed Proof of Performance for the provided antenna, certifying that it complies with the Special Condition and the relevant FCC Rules. The Proof of Performance is included as part of **Attachment I**. Therefore it is believed that no additional showing is necessary to fulfill this special condition.

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FCC Special Operating Condition 2 stipulates that:

“BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee/licensee shall submit an affidavit that the installation of the directional antenna system was overseen by a qualified engineer. This affidavit shall include a certification by the engineer that the antenna was installed pursuant to the manufacturer's instructions and list the qualifications of the certifying engineer.”

The antenna installed was supervised by Mr. Richard Fleeson, Director of Engineering for C-Span. The engineer's certification is attached as **Attachment II**.

FCC Special Operating Condition 3 requires that:

“BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit an exhibit demonstrating that the measured directional antenna pattern complies with the appropriate community coverage provisions of 47 C.F.R. Sections 73.315 or 73.515 (See 47 C.F.R. Section 73.316(c)(2)(ix)(B)).”

Attached herewith as **Attachment III** is a graphic representation of the 60 dBμ F(50,50) coverage contour using the manufacturer's measured pattern. As demonstrated, the contour completed encompasses the WCSP(FM) community of license, Washington, DC.

FCC Special Operating Condition 4 requires that:

“BEFORE PROGRAM TESTS ARE AUTHORIZED, permittee must submit a certification executed by a licensed surveyor showing that the FM directional antenna system has been oriented at the azimuth(s) specified in the directional antenna proof of performance. This certification must include a description of the method used by the surveyor to determine the azimuth(s) of the installed directional antenna system and the accuracy of that determination.”

Attached herewith as **Attachment IV** is a certification provided by licensed surveyor Gary Crouse. As stated, the WCSP(FM) antenna has been installed with an orientation to 70 degrees True, as specified by the antenna manufacturer on page 10 (internal Figure 2) of the Proof of Performance.

FCC Special Operating Condition 5 requires that:

“The relative field strength of neither the measured horizontally nor vertically polarized radiation component shall exceed at any azimuth the value indicated on the composite radiation pattern authorized by this construction permit. A relative field strength of 1.0 on the composite radiation

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pattern herein authorized corresponds to the following effective radiated power: 24 kilowatts. Principal minima and their associated field strength limits: 230 - 240 degrees True: 1.65 kilowatts."

Attached herewith as **Attachment V** is a tabulation of both the authorized envelope pattern and the composite pattern as derived from the horizontally and vertically polarized patterns provided on pages 6 and 7 respectively of the manufacturer's proof of performance. As demonstrated in the table, the measured relative field value does not exceed the envelope pattern at any azimuth. Also, as demonstrated in **Attachment VI**, the ERP at 90 degrees True equals 24.0 kW with a relative field value of 1.000, and does not exceed 1.65 kW ERP at 230 and 240 degrees True. Therefore it is believed that no additional showing is necessary to fulfill this special condition.

Certification

These application materials have been prepared on behalf of *National Cable Satellite Corporation d/b/a C-SPAN* by the undersigned or under his direction and are true and correct to the best of his information, knowledge and belief. Mr. Clinton's qualifications are a matter of record before the FCC.

Respectfully submitted,



Robert J. Clinton October 16, 2020
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