

MINOR CHANGE APPLICATION
AMERICAN FAMILY ASSOCIATION
WWGN RADIO STATION
CH 205B1 - 88.9 MHZ - 1.4 KW (H)/4.1 KW (V)
OTTAWA, ILLINOIS
April 2005

EXHIBIT B

Channel 6 Television Interference Analysis

The proposed WWGN is located within the distance specified in §73.525(a)(1) of the rules as it relates to KWQC-TV, Channel 6, Davenport, Iowa and WITI, Channel 6, Milwaukee, Wisconsin. KWQC-TV operates with an effective radiated power of 100.0 kilowatts with a height above average terrain of 439 meters. The KWQC-TV site is located at North Latitude 41° 32' 49" and West Longitude 90° 28' 35". WITI operates with an effective radiated power of 100.0 kilowatts with a height above average terrain of 305 meters. The WITI site is located at North Latitude 43° 05' 26" and West Longitude 87° 53' 50". The proposed WWGN facility will operate with an elliptically polarized antenna with an effective radiated power of 1.4 kilowatts in the horizontal plane and 4.1 kilowatts in the vertical plane.² The proposed WWGN site is outside the 47.0 dBu Grade B contour of both KWQC-TV and WITI.

Pursuant to §73.525 of the rules, the WWGN 65.0 dBu (50/10) contour would have to cross the KWQC-TV 47 dBu contour for there to be interference to the station (assuming a 6 dB reduction in the non-commercial station's interfering contour of television receive antenna

2) The present licensed WWGN facility utilizes a circularly polarized system.

directivity).³ As presently authorized, the WWGN 65 dBu contour extends into the KWQC-TV 47 dBu contour. As a result of the elliptically polarized antenna system, the proposed WWGN 65 dBu contour will not extend as far into the KWQC-TV 47 dBu contour, as indicated on Exhibit #B1. As such interference to KWQC-TV will be reduced as a result of this proposed change to WWGN.⁴ Therefore, it is believed this proposal is in compliance with §73.525 as it relates to KWQC-TV (a reduction to existing interference).

Similarly, the WWGN proposed 59 dBu (50/10) contour would have to cross the 47 dBu contour of WITI for interference to occur.⁵ As shown on Exhibit B2, the proposed WWGN interfering contour falls well short of reaching the WITI protected contour. As such, it is believed this proposal is in compliance with §73.525 of the Commission's rules, as it relates to WITI.

3) This is considered a worst case interfering contour for WWGN.

4) While the ratio method was not used to compare the present interference level to the proposed, since the depth of the WWGN 65 dBu into the KWQC-TV 47 dBu is lessened, the actual interference to the station would be reduced.

5) Due to the distance between WWGN and WITI, a 6 dB reduction for receiver antenna directivity is not needed to demonstrate clearance to the WITI 47 dBu contour.

Graham Brock, Inc. - Broadcast Technical Consultants

KWQC-TV
BLCT-19821108KN
Latitude: 41-32-49 N
Longitude: 090-28-35 W
ERP: 100.00 kW
Channel: 06+
Frequency: 85.5 MHz
AMSL Height: 611.0 m

WWGN Proposed
Latitude: 41-18-05 N
Longitude: 088-57-11 W
ERP: 4.10 kW V / 1.40 kW H
Channel: 205B1
Frequency: 88.9 MHz
AMSL Height: 331.0 m

WWGN Licensed
BLED-19941003KA
Latitude: 41-16-51 N
Longitude: 088-56-13 W
ERP: 1.50 kW
Channel: 205A
Frequency: 88.9 MHz
AMSL Height: 380.0 m

WWGN LIC. 65 dBu (50/10)

AREA OF REDUCED OVERLAP

EXHIBIT B1
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WWGN NEW 59 dBu (50/10)

WWGN LIC. 59 dBu (50/10)

WWGN NEW 65 dBu (50/10)

Scale 1:950,000

0 10 20 30 km

Graham Brock, Inc. - Broadcast Technical Consultants

WWGN Proposed
 Latitude: 41-18-05 N
 Longitude: 088-57-11 W
 ERP: 4.10 kW V / 1.40 kW H
 Channel: 205B1
 Frequency: 88.9 MHz
 AMSL Height: 331.0 m

WITI
 BLCT-19990129KT
 Latitude: 43-05-26 N
 Longitude: 087-53-50 W
 ERP: 100.00 kW
 Channel: 06Z
 Frequency: 85.0 MHz
 AMSL Height: 511.0 m

WITI 47 dBu (50/50)

WWGN 59 dBu (50/10)

Scale 1:1,750,000



EXHIBIT B2
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