

ENGINEERING REPORT

**MINOR CONSTRUCTION PERMIT
APPLICATION**

“Power Increase from 9.0 kW to 13.0 kW”

**WTOR(AM) – 770 kHz – Youngstown, NY
License No. BL-20001113ABU
January, 2006**

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MUNN-REESE, INC.
Broadcast Engineering Consultants
Coldwater, MI 49036

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DISCUSSION

This firm was retained to prepare this engineering report in support of a minor construction permit application for the licensed facilities of AM broadcast station WTOR(AM), 770 kHz, Youngstown, NY. Currently WTOR(AM) holds license BL-20001113ABU for 9.0 kW of daytime only directional power using a three tower array. A power increase to 13.0 kW using the same three tower array and operating parameters is requested. The data and exhibit numbering contained herein is responsive to Section III-A of FCC Form 301.

A waiver of a full proof of performance is requested as this application proposes solely an increase in power using the present licensed theoretical parameters. No other changes are being proposed. In addition, the present Custom Q value of 30.0 has been ratioed up to 36.06 using the following formula:

$$[\text{SQRT}(\text{Present Power} / \text{Proposed Power})] * (\text{Present Custom Q})$$

As a result, it is believed the burden of a full proof of performance is not warranted where no actual shift in field or phase is proposed and all relevant values can be ratioed accurately and appropriately. The applicant is not opposed to a partial proof of performance requirement as a stipulation for licensing.

Broadcast Facility. The broadcast facility remains in compliance with all applicable rules contained in *C.F.R. Chapter 47, Part 73, Subpart A*. The proposed WTOR(AM) antenna system will remain a three tower daytime only operation. Details of the proposed antenna system are located in **Exhibit(s) 11.1-5**. A map depicting the present 0.5 mV/m, 2.0 mV/m, and 5.0 mV/m daytime service contours for WTOR(AM) has been included as **Exhibit 11.6(a)**. A map depicting the proposed daytime service contours has been included as **Exhibit 11.6(b)**. Present and proposed 1.0 V/m "Blanket" Contours have been included as **Exhibit 11.7**.

Community Coverage. Community coverage remains in compliance with the requirements of §73.24(i). Youngstown, NY will continue to receive daytime primary service as seen in **Exhibit 11.6b**.

Main Studio Location. The main studio location remains in compliance with the requirements of §73.1125. Studios for WTOR(AM) will remain unchanged from the present facilities.

Groundwave Interference. The proposed allocation remains in compliance with the requirements of §73.37. **Exhibit(s) 15.1-4** are relevant Domestic and Region 2 Allocation Studies for the present and proposed operations. There is presently existing Domestic overlap with WJR, Detroit, MI and existing international overlap with CIAO, Brampton, ON. Both areas of contour overlap will not be increased as a result of this application. Other instances of domestic contour overlap fall completely over Lake Erie or non-domestic soil.

Skywave Interference. No nighttime operation is requested in this application.

Critical Hours Interference. The proposed allocation is in compliance with the requirements of §73.187. A Critical Hours study has been included in **Exhibit 17.1**. No reduction in daytime power is needed during Critical Hours.

Environmental Protection Act. The proposed allocation is in compliance with OET Bulletin No. 65. Full protection is afforded by the proposal. An RF Radiation study has been included in **Exhibit 18.1**.