

UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION

File No. BMLH-821004BH

Call Sign WWSW-FM

Modification No. ---

## MODIFICATION OF LICENSE

FM

(Class of station)

WWSW RADIO, INC.  
RADIO STATION WWSW-FM  
ONE ALLEGHENY SQUARE  
PITTSBURGH, PENNSYLVANIA 15212

Licensee: WWSW Radio, Inc.

Station location: Pittsburgh, Pennsylvania

Associated Broadcast Station:

The Authority Contained in Authorization File No. --- dated ---  
granted to the Licensee listed above is hereby modified in part as follows:

ERP: 50 kw (H&amp;V)

HAAT: 810 feet (H&amp;V)

TPO: 19 kw

TRANSMITTER: TYPE ACCEPTED

ANTENNA: ERI FMH-6AC, six sections circularly polarized side mounted at the 632 foot level (C/R-AGL) on WIIC (TV) tower.

OVERALL HEIGHT ABOVE GROUND: 845 feet (without obstruction lighting)

This modification of license shall be attached to and be made a part of the license of this station.

Except as herein expressly modified, the above-mentioned license, subject to all modifications heretofore granted by the Commission, is to continue in full force and effect in accordance with the terms and conditions thereof and for the period therein specified.

Dated: September 22, 1983  
dacFEDERAL  
COMMUNICATIONS  
COMMISSIONOCT 07 1983  
TAC

F.C.C. - WASHINGTON, D. C.

FCC Form 359  
July 1978

ORIGINAL

TALKRADIO

WTKN 970AM

3WS 95FM

RECEIVED

OCT 4 1982

OFFICE THE  
SECRETARY

September 29, 1982

Secretary  
F.C.C.  
1919 M Street, NW  
Washington, D.C. 20054

On September 22, 1982 WWSW (FM) replaced its antenna under the provisions of FCC Part 73.257 (C) (1). The licensed RCA BFC-6 antenna was replaced with a 6-bay ERI type FMH-6AC. The new antenna was designed to have an identical vertical field pattern which includes 1° of electrical beam tilt and 15% first null fill.

Power gain of the new antenna is 3.3, which is slightly higher than that of the licensed antenna. Therefore, the transmitter power output was decreased to 19KW in order to maintain the licensed ERP value of 50KW. The new antenna is centered in the apperture formerly occupied by the licensed antenna, therefore there is no change in height above average terrain of the center of radiation.

The following tabulations are those constants used in the calculation of the ERP:

Antenna Power Gain	3.3
Feedline Efficiency	80% (exactly)
Transmitter PA Efficiency	72.5%

## Transmitter:

$$7500v (Ep) \times 3.5A (Ip) \times .725 (\text{efficiency}) = 26.250KW \text{ TPO}$$

## Feedline:

$$19KW (TPO) \times 80\% (\text{efficiency}) = 15.2KW \text{ Antenna input power}$$

## Antenna:

$$15.2KW (\text{antenna input power}) \times 3.3 (\text{antenna power gain}) = 50KW \text{ ERP}$$

A completed FCC form 302 reflecting these changes is attached. Equipment performance measurements were also performed, a copy of which is included as exhibit 1 of this report.

WTKN-WWSW

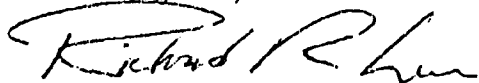
One Allegheny Square, Allegheny Center, Pittsburgh, Pennsylvania 15212 (412) 323-5300

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Please refer all questions regarding the antenna change to our consulting engineer,  
Neil M. Smith at the address below:

Neil M. Smith  
Smith & Powstenko  
Suite #210  
200 N Street, N.W.  
Washington, D.C. 20036  
Phone (202) 293-7742

With regards,



Richard R. Lucas  
Chief Engineer  
WTKN/3WS Radio

RL/kb

