

ENGINEERING REPORT RE  
APPLICATION TO INCREASE POWER TO EQUIVALENT  
GRANDFATHERED CLASS A MAXIMUM FACILITIES OF FM  
STATION  
**WDHA-FM, DOVER, NJ**  
CHANNEL 288A (105.5 MHz) 1.0 kW 175 M

*Exhibit 22 - 30 - FCC 301 Minor Change Application – April 2005*  
*Section III-B – FM Engineering*

*TECHNICAL SPECIFICATIONS*

Engineering Statement of WDHA-FM, Dover, New Jersey

INTRODUCTION

This engineering report has been prepared on behalf of The Sentinel Publishing Company, licensee of FM radio station WDHA-FM, Dover, New Jersey and is in support of its minor change application for a construction permit to increase the station's power to maximum "grandfathered" Class A facilities. Currently, WDHA-FM is licensed for operation on Channel 288A (105.5 MHz) with 0.98 kilowatts (H&V) effective radiated power (ERP) and 175 meters (HAAT). Station WDHA-FM is proposing a slight increase in power to 1 kW ERP, equivalent to 3 kW and 100 meters HAAT, utilizing a non-directional antenna.

As previously indicated WDHA-FM is a short-spaced grandfathered station under 73.213 of the commission's Rules and is permitted facilities of 3 kW/100 meters or the equivalent. The short-spaced stations under Section 73.213(a) are WWPR-FM, New York, NY and WDBY, Patterson, NJ. The short-spaced station under Section 73.213(c) is WDAS-FM, Philadelphia, PA. Using the FCC program "FMpower" the Equivalent ERP for 175 meters HAAT is 1 kW.

Pertinent exhibits requested by Section III-B – FM Engineering of the FCC Form 301 are included in this report.

ANTENNA SITE

The licensed antenna site of WDHA-FM is unchanged. The geographic coordinates (NAD-27) of the existing tower are as follows:

North Latitude: 40° 51' 19"

West Longitude: 74° 30' 42"

Since there is no change in the antenna site and the map showing the site is on file at the FCC, it is not being submitted with this application.

ALLOCATION SITUATION

The WDHA-FM allocation situation is not impacted by this proposal.

TOPOGRAPHIC DATA

The WDHA-FM Topographic is not impacted by this proposal.

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CONTOUR DATA

The contour data is not being provided nor considered necessary based on the slight increase in ERP.

MAIN STUDIO LOCATION

The main studio is located within the predicted 3.16 mV/m contour of WDHA-FM.

BLANKETING CONTOUR (115 dBu)

The blanketing contour (115 dBu) based on an ERP of 1 kW will extend less than one half kilometer (0.40) from the WDHA-FM antenna site. The applicant will comply with all the pertinent requirements of section 73.318 of the Commission's rules.

FAA DATA

FAA notification is not required since the tower is an existing tower less than 200 feet AGL and there is no change in height proposed.

ENVIRONMENTAL STATEMENT

Since this proposal does not require any change in the existing site or location of the FM antenna, the environmental concerns listed in Section 1.1307(a) of the Commission's Rules are not pertinent; consequently, those issues have not been addressed in this proposal.

However, an evaluation has been made to determine compliance with the FCC specified standards for human exposure to RF radiation as set forth in the OST Bulletin No. 65 dated August 1997. For a combined effective radiated power of 2 kW and an antenna radiation center of 39 meters above ground level (antenna field factor 0.4), the proposed FM operation would have a maximum of 7.8 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ) RF radiation level at 2 meters above ground level.

The Commission guidelines for the FM band are  $1000 \mu\text{W}/\text{cm}^2$  for the occupational/controlled environment and  $200 \mu\text{W}/\text{cm}^2$  for the general population/uncontrolled environment. Therefore, members of the public and personnel working around the proposed transmitting facility will not be exposed to RF fields exceeding the Commission's guidelines. A fence appropriately marked with warning signs is currently installed around the tower to block unauthorized access. With respect to work performed on the tower structure, WDHA-FM has established procedures, including reducing or

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turning off the power, to ensure the workers are not exposed to RF fields above the Commission's guidelines.

For the reasons stated above, this proposal does not involve any action specified in Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.