

ENGINEERING REPORT RE  
RESPONSE TO QUESTION 13 THRU 17 OF  
FCC FORM 301 SECTION III-B  
APPLICATION FOR A  
CONSTRUCTION PERMIT FOR STATION  
WBYA(FM), ISLESBORO, MAINE  
CH.288 (105.5 MHZ) 20 KW MAX (H&V) 93 METERS

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### Introduction

This engineering report has been prepared on behalf of Gopher Hill Communications in support of an application for a construction permit for a change in licensed facilities of FM broadcast station WBYA(FM) licensed to Islesboro, Maine. It is proposed to reduce effective radiated power (ERP) from 25 kW (max) to 20 kW (H&V) and 93 meters antenna height above average terrain. The class of WBYA(FM) will remain unchanged. No other changes are requested.

Exhibits requested by Section V-B of FCC Form 301 are included in this engineering report.

### Transmitter Site (unchanged)

The existing directional FM antenna will remain unchanged.

The geographic coordinates (NAD-27) of the existing site are as follows:

North Latitude: 44° 18' 58"

West Longitude: 68° 58' 12"

Tower Registration No. 1042199

Power and elevation data with the exception of a slight decrease in power there are no changes.

### Contour Data

The proposed 70 dBu contour will extend 25.7 km in the direction of the principal community. The licensed community is located approximately 6 km from the existing transmitter site.

### Allocation Situation

The allocation situation remains unchanged since the reduction in power from 25 kW to 20 kW will reduce all relevant contours from that now authorized.

### Main Studio Location

The main studio address is unchanged.

With the slight reduction in ERP, no potential interference concerns are raised.

### Blanketing Contour

The proposed blanketing contour (115 dBu) based on an ERP of 20 kW will extend at lessor distance than currently licensed. Therefore, no applicant will comply with all the pertinent requirements of Section 73.318 of the FCC Rules and Regulations.

### Environmental Statement

The 40 kW (max) operation (20 kW H plus 20 kW V) will utilize the existing Shively 4-bay FM antenna with a center of radiation above ground of 276 feet (84 meters). Based on 0.35 downward radiation, the proposed operation complies with the FCC Rules, Section 1.1307, as it meets the provisions of the FCC RF radiation guideline. The FM transmitter power will be reduced or terminated when workers are at or above the 44 meter level of the 92.4 meter tower.

An environmental assessment (EA) is categorically excluded under Section 1.1307 of the FCC Rules and Regulations since the applicant indicates:

- (a)(1) The existing facilities are not located in an officially designated wilderness area.
- (a)(2) The existing facilities are not located in an officially designated wildlife preserve.
- (a)(3) The existing facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The existing facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.

- (a)(4) The existing facilities will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing facilities are not located near any known Indian religious sites.
- (a)(6) The existing facilities are not located in a flood plain.
- (a)(7) The location of the existing FM antenna will remain unchanged.
- (a)(8) It is not proposed to change the tower lighting and complies with FAA requirements.
- (b) A security fence with a locked gate will surround the tower. Workers and the general public will not be subjected to RF radiation levels in excess of the current FCC guidelines. Authorized personnel will be alerted to areas of the tower where potential radiation levels are in excess of the current FCC guidelines.