

**ENGINEERING REPORT**  
**FM Translator**  
**Minor Change to Licensed Facility**  
**Construction**  
**Permit Application**  
for  
**W259AH – Petoskey, MI**  
as an AM Fill-In Translator for  
**WQHN(FM) – East Jordan, MI**

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(Exhibit numbering is in response to FCC Online Form 349, Section III-A)

## Discussion

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This firm has been retained to prepare the required engineering report in support of a Minor Modification to License Construction Permit Application for FM Translator W259AH – Petoskey, MI. The licensed Facility W259AH currently is authorized to operate at an AMSL of 387 meters with an ERP of 0.010 kW (H&V) operating on CH259D. This Translator proposal requests an AMSL of 387 meters and an ERP of 0.250 kW (H&V) operating on CH259D as a Fill-In Translator for WQHN(FM) – East Jordan, MI; Facility ID No. 28886. WQHN(FM) has been authorized under Construction Permit BPH-20180607AAA to upgrade to Class C3. Upon the buildout and licensing of WHQN(FM) under this construction permit the coverage contour will allow W259AH to serve as a fill-in translator for WHQN(FM). Construction and licensing of WHQN(FM) is expected to occur within the next 4-6 weeks.

The Translator as proposed will be mounted on a tower bearing Antenna Structure Registration Number 1000703. A copy of the ASR is included in **Exhibit 13.1**.

The proposed 60 dB $\mu$  contour of the Fill-In Translator lies wholly inside the primary station's coverage contour. A map of the present and proposed service area in relation to the primary station coverage contour has been included in **Exhibit 13.2**.

It has been determined the Translator may be used in the area without interference to any existing FM broadcast station or facility. General allocation details are found in **Exhibit 13.3**. It is believed sufficient clearance exists precluding the need for additional contour protection showings.

The applicant certifies the proposed translator 34 dBu F(50:10) Interference contour does not enter Canadian territory. Documentation of the proposed 34 dBu F(50:10) Interference contour will be supplied upon request.

This translator is not within the affected distance of any TV Channel 6 stations.

The applicant would like to note use of the NED 03 second terrain database for terrain based showings contained here-in.

## **Discussion** (continued)

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**RADIATION PROTECTION:** The Commission requires an engineering study regarding compliance with the guidelines for human protection from radiofrequency radiation. This report section is in response to that provision of the Rules. The current Federal Communications Commission guidelines for RF radiation protection are set forth in OET Bulletin No. 65 (Edition 97-01), and the accompanying Supplement A, (Edition 97-01).

The FM Broadcast facility proposed in this application will not produce human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1307 of the Commission's rules concerning RF contributors. **Exhibit 17.1** provides the details of the study that was made to demonstrate compliance. The facility is properly marked with signs, and entry is restricted by means of fencing with locked doors and/or gates. Any other means as may be required to protect employees and the general public will be employed.

***In the event work would be required in proximity to the antenna such that the person or persons working in the area would be potentially exposed to fields in excess of the guidelines set forth in OET Bulletin No. 65 (Edition 97-01), the transmitter power will be reduced or the station will cease operation during the critical period.***

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