

**Exhibit 18 - Statement E**  
**Application for Construction Permit**  
**WZHF Capitol Heights, Maryland (FCC Facility ID 73306)**  
**1390 kHz 9 kW – D 1 kW – N DA-2**  
*Prepared November 2013 for*  
**Way Broadcasting Licensee, LLC**

**Nighttime Allocations Considerations**

The proposed nighttime WZHF antenna design is described in **Exhibit 13 - Table II**, and was based upon site location considerations, limitations involving the incoming night limits on the proposed frequency and associated coverage goals, and channel allocation/interference constraints. **Exhibit 18 - Table III** presents the basis for the calculations determining the proposed WZHF nighttime interference free (“NIF”) limit. As shown, the proposed WZHF NIF is 10.896 mV/m, or 10.9 mV/m when rounded to the nearest tenth of a millivolt. This night limit value was employed for the development of the associated contour plot of **Exhibit 14 - Figure 11**.

With respect to frequency interference and allocation matters, for all pertinent co-channel and first adjacent channel stations and proposals of interest, interference was predicted in accordance with the methods specified in the Commission’s Rules. As demonstrated herein, the proposed WZHF nighttime facility meets all FCC requirements for protection of co-channel and adjacent channel stations.

**Exhibit 18 - Table IV** provides a portion of the program output from the nighttime allocation study analysis program used to evaluate the proposed design. The impact of the proposed facility was considered along with the benchmark established by the existing licensed facility. The program output table includes a "Margin" column, which indicates the difference between the permissible radiation toward the station and the actual radiation of the proposed WZHF facility. The stations studied are sorted by increasing “clearance margin”, with the lowest margin being listed first, and the largest listed last<sup>1</sup>. As shown, there are no “negative” values, indicating that the proposal complies with the Commission’s pertinent nighttime interference rules. (Negative values in the margin column indicate a rules.)

**Exhibit 18 - Table V** provides a different, more traditional version of the nighttime allocation study results, with the same conclusions being reached - the proposed WZHF nighttime facility meets all FCC requirements for protection of co-channel and adjacent channel stations. (As with **Exhibit 18 - Table IV**, only the more pertinent stations were included in the exhibit.) As shown, the facilities proposed herein do not enter into the 25% RSS night limit calculation of any licensed or proposed facility, with the exception of WRSC, State College, Pennsylvania. In that particular instance, the existing licensed WZHF facility is already entering into the 25% RSS night limit of WRSC.

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<sup>1</sup> The entire program results tabulation was not duplicated in **Table IV** for reasons of brevity since the remainder of the table shows even higher margins, however a complete tabulation can be provided upon request.

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However, with the proposed new WZHF nighttime proposal, the WZHF contribution to the WRSC limit would be less than the licensed value, which is a desirable outcome, as recognized in Note 1 to the Table of FCC Rule Section 73.182(q). Specifically, those interferers that contribute to a station's RSS using the 25% exclusion method but do not contribute to that station's RSS using the 50% exclusion method may make changes not to exceed their present contribution.

An examination was also made of possible nighttime groundwave contour overlaps. No overlaps occur with respect to the NIF contours of any pertinent stations, and no other overlaps occur on any channel relationship with the exception of the first adjacent case. In that instance, there is already theoretical groundwave overlap between WWIN and the licensed WZHF facility; however that overlap is reduced under the facilities proposed herein<sup>2</sup>. There is also theoretical existing nighttime groundwave contour (land area) overlap between the licensed WZHF operation and WPCE; however that overlap is eliminated under the facilities proposed herein. If deemed necessary by Commission Staff, additional information and maps regarding first adjacent channel groundwave nighttime overlap scenarios can be provided on request.

## **Conclusion**

Based upon the information contained herein, it is believed that this proposal is compliant with the appropriate nighttime allocation requirements of the Commission's rules and policies.

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<sup>2</sup> Existing incoming (land area) overlap between the licensed WZHF facility and WWIN encompasses approximately 1267 square kilometers, but that amount is reduced to approximately 718 square kilometers with the proposed facility. Existing outgoing (land area) overlap to WWIN from the licensed WZHF facility encompasses approximately 1500 square kilometers, but the amount of overlap is reduced to approximately 865 square kilometers with the proposed facility.