



## **ENGINEERING STATEMENT**

**IN SUPPORT OF**  
**MINOR MODIFICATION OF CONSTRUCTION PERMIT**  
**WSAH-DT**  
**CHANNEL 42**  
**(BRIDGEPORT, CT)**

### **Background**

WSAH License, Inc. (WSAH) has a construction permit for WSAH-DT, CH42 (BPCDT-19991101AFE, Facility ID# 70493) specifying an ERP of 1000 kW and a RCAMSL of 272m. The grant of the present permit was based, in part, on the grant of two waivers (see attachment); the instant proposal does not affect these earlier waivers. WSAH wishes to modify that construction permit so that it may install a stacked DTV/TV antenna on top of the tower for DTV/TV operation.

### **Site**

The proposed facility location is the same as specified in the construction permit; the Antenna Structure Registration Number of the tower is 1046926. Because the overall height will increase due to the stacked antennas, WSAH has filed form 7460-1 with the FAA.

### **Antenna System and Tower**

WSAH proposes to use a Dielectric omni-directional antenna (TFU-26JTH O4). It will be the top antenna of a top-mounted, stacked-DTV/TV antenna. The construction will cause the overall height of the tower with appurtenances to be 292.2m AMSL which is 12.1m higher than the currently authorized overall height of 280.1m. The FAA has been notified (2006-ANE-114-OE) and a modification of the ASR will be filed upon receipt of a Determination of No Hazard from the FAA. The antenna will have a center of radiation of



95.5m AMSL (12.5m higher) with an HAAT of 168.5m. The proposed ERP has been adjusted (lowered) to 780 kW in order to comply with the Commission's "freeze order" and not exceed the authorized 41 dBu F(50,90) contour in any direction. Table 1 is attached to show the predicted contour distances before and after the construction.

### **Coverage**

The entire principal community of Bridgeport, CT is well within the predicted F(50,90) 48 dBu contour using the proposed 780kW ERP and omni-directional antenna pattern.

### **Interference**

There will be no new interference to other any other domestic stations including WEDW-TV and W28AJ. Since the proposed 41 dBu F(50,10) contour would not exceed the authorized 41 dBu F(50,10) contour in any direction (see Table 2) by inspection there would be no new interference to any stations/allotments in Canada.

### **Environmental/RFR**

The proposed construction does not require preparation of an Environmental Assessment as it does not involve any of the factors listed in Section 1.1306.

The additional ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.0061 mW/cm<sup>2</sup> which is less than 5% of the MPE limit for public exposure (0.0214 mW/cm<sup>2</sup>) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

WSAH agrees to comply with the Commission's requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will also be encouraged to wear personal RFR

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monitors when on the structure. The tower base is enclosed by a locked security fence and appropriate signage warning of RFR hazards are posted.

**Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.



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John F.X. Browne, P.E.  
February 13, 2006



## **List Of Previously Authorized Waviers**

1. Waiver of interference to WEDW-TV (CH 49, Bridgeport, CT) that would put the interference to WEDW-TV over 10% was previously granted to WSAH-DT. WEDW-TV has agreed to accept any interference to it from WSAH-DT. The DTV Consent Agreement was part of the original CP filing (BPCDT-19991101AFE).
2. Waiver of interference requirements (contour overlap) to W28AJ (Class A, CH28 in Allingtown, CT) was previously granted to WSAH-DT. Waiver was granted based on Longley-Rice interference analysis that predicts 0.00% interference.

**Table #1**  
**WSAH-DT Contour Comparison**

Azimuth (deg)	Construction Permit 41 F(50,90) dBu Contour (km)	Proposed 41 dBu F(50,90) Contour (km)
0	73.86	73.86
45	76.51	76.04
90	82.11	81.41
135	85.46	84.76
180	85.07	84.37
225	77.99	77.52
270	77.44	76.97
315	79.54	79.08

**Table #2**  
**WSAH-DT Contour Comparison**

Azimuth (deg)	Construction Permit 41 dBu F(50,10) Contour (km)	Proposed 41 dBu F(50.10) Contour (km)
0	183.28	179.12
45	186.96	182.27
90	194.30	189.45
135	199.31	194.14
180	198.79	193.65
225	189.00	184.24
270	188.23	183.50
315	191.02	186.22