

TECHNICAL EXHIBIT  
REQUEST FOR SPECIAL TEMPORARY AUTHORITY  
TELEVISION STATION WFFF-DT (STA)  
BURLINGTON, VERMONT  
CHANNEL 43 18.8 KW 807 M

Technical Statement

This Technical Statement was prepared on behalf of WFFF-DT concerning a request for Special Temporary Authority (STA) for WFFF-DT, Burlington, Vermont (Channel 43).

The proposed WFFF-DT STA facility is to operate with an existing broadband auxiliary transmitting antenna that is side-mounted on the existing WCAX-DT tower. The nominal non-directional effective radiated power of the WFFF-DT STA facility is 18.8 kW with an antenna radiation center height above average terrain of 807 m. The details and specifications of the proposed operation are summarized in the table below:

Parameter	Proposed
Channel	43
Location	Mount Mansfield
FCC ASRN	none
Geographic coordinates (NAD27)	44-31-32N / 072-48-58W
Site elevation	1224 m AMSL
Overall structure height (with all appurtenances)	56 m
Antenna radiation center height above ground	4 m

Parameter	Proposed
Antenna radiation center height above mean sea level	1228 m
Antenna radiation center height above average terrain	807 m
Antenna, make and model	Dielectric, TUP-04-2/8U-1-R
Antenna type	Non-directional
Antenna Gain	6.72 dB
Maximum ERP	12.75 dBk (18.8 kW)
Proposed Operation	
Transmitter power output	6.99 dBk (5.0 kW)
Total transmission loss	0.96 dB
Antenna input power	6.03 dBk
Antenna gain	6.72 dB
Maximum effective radiated power	12.75 dBk (18.8 kW)

There will be no change in the overall height of the existing antenna structure as a result of the proposed operation.

The 41 dBu, f(50,90) noise limited contour of the proposed WFFF-DT STA facility is well within the predicted 41 dBu, f(50,90) noise limited contour of the authorized WFFF-DT facility. See FCC File No. BPCDT-19991029ABX.<sup>\*</sup> Figure 1 is a map illustrating the predicted coverage contours for the proposed WFFF-DT STA operation and the authorized construction permit facility of WFFF-DT. Also as indicated in Figure 1, the predicted 48 dBu, f(50,90) contour fully encompasses the city of Burlington.

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<sup>\*</sup> WFFF-DT is authorized for operation on Channel 43 with a maximum directional effective radiated power of 47 kW and an antenna height above average terrain of 839 m.

There are other broadcast and non-broadcast facilities located in proximity to the proposed facility. No adverse electromagnetic impact is expected with respect to these facilities. However, the applicant recognizes its responsibility to correct objectionable electromagnetic interference problems that result from its proposed operation.

An evaluation was conducted for the proposed facility concerning compliance with Section 1.1307(b) of the FCC Rules regarding human exposure to radio frequency (RF) energy.

There are other broadcast facilities to be located on the tower or within close proximity of the tower site. Preliminary calculations indicate that the proposed facility may exceed the 5% maximum permissible exposure exclusion level for certain points on the ground in the vicinity of the proposed transmitter site. Therefore, the applicant shall conduct RF power density measurements to the extent necessary to ensure compliance with the FCC specified guidelines for human exposure to RF energy.

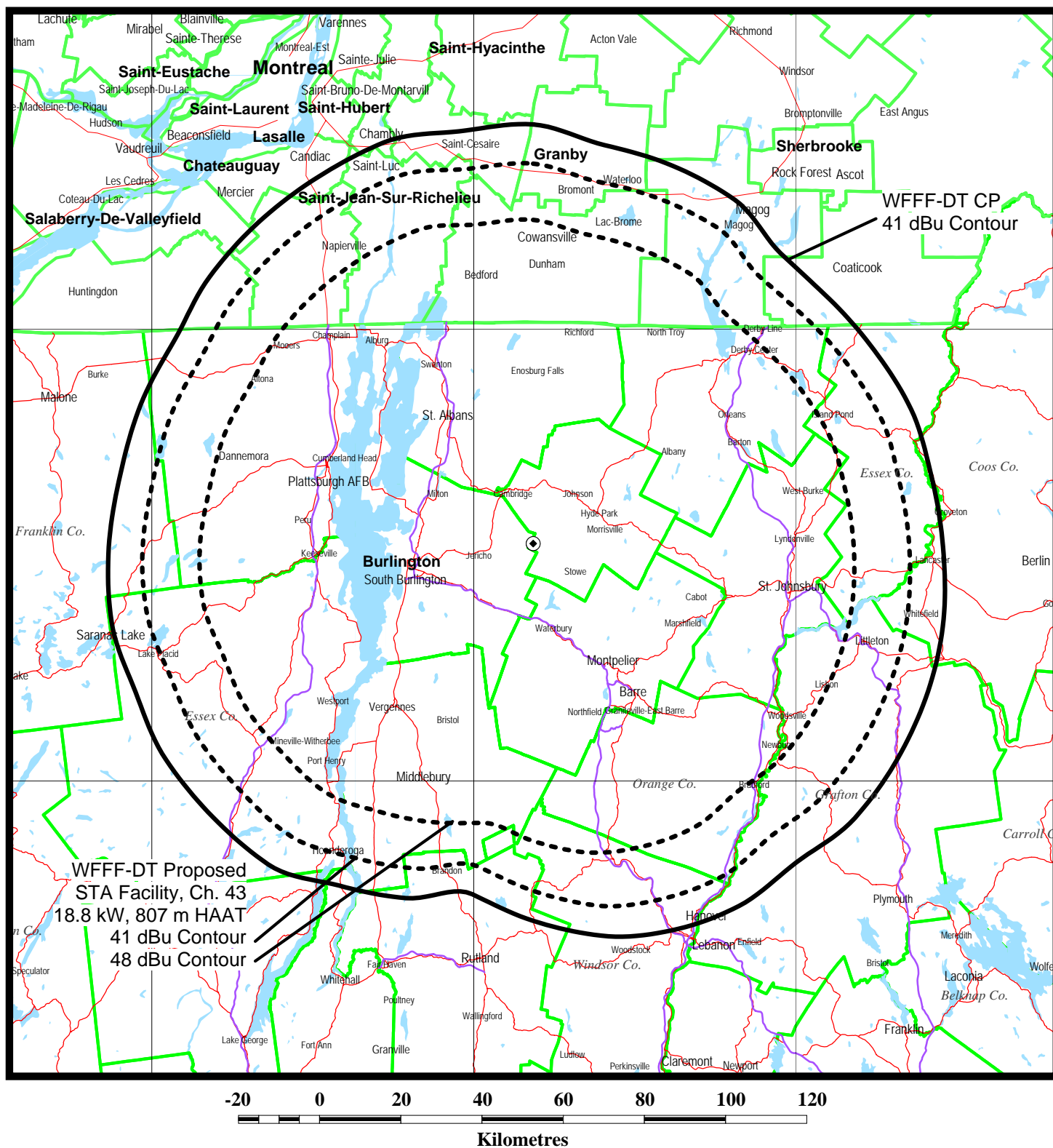
The applicant, in coordination with any other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the tower or antenna from radio frequency radiation in excess of the FCC guidelines.



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## PREDICTED COVERAGE CONTOURS

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