

EXHIBIT #1
ENGINEERING STATEMENT

Vermont Public Radio
Minor Change to Licensed Station
WRVT
BLED-19881215KA
Rutland, VT

August 2007

CH 204C2

0.09 kW H & 4.8 kW V DA

This engineering statement supports application filed by Vermont Public Radio to make a minor change to licensed NCE FM station WRVT, Rutland, Vermont.

The applicant proposes to increase effective radiated power and modify its directional antenna pattern and polarization. There is also a coordinate correction to the latitude of the facility. No other changes are being proposed at this time.

Pages 3-5 of this exhibit contain information about the proposed directional antenna, including the pattern azimuthal chart, the proposed vertical elevation field and an explanation of how the pattern will be achieved.

Exhibit #13 consists of a request to continue the main studio location waiver previously granted to WRVT under license BLED-19881215KA.

Exhibit #14 shows that the proposed facility meets the community coverage requirements of Section 73.515.

A total of 36 evenly spaced radials were used to determine the antenna height above average terrain. The N.G.D.C. 30 arc second database was employed to determine the elevations along the radials that were averaged using the required four-point interpolation method. The resulting averaged radial antenna heights were employed using the Commission's own TVFMINT algorithm to project the distances to signal contours. A map of the proposed 60 dBu contour, with cardinal radials is included on page #2. A tabular listing of the distance to the 60 dBu contour can be found on page #3 of this exhibit.

Exhibit #16 is an Allocation Report showing that there is no prohibited contour overlap with any existing license, construction permit or application.

Exhibit #19 defines the protection afforded under Section 73.525 to the two Television Channel 6 station within the 235 kilometer cutoff distance for NCE FM stations on Channel 204. WRGB operates with 93.3 kW ERP from a site 134.6 kilometers distant from WRVT. Assuming a study ERP of 0.21 kW¹ and applying the 6 dB receiver directivity credit², the overlap area between the protected 47 dBu contour of WRGB and the worst-case interference 62.3 dBu contour of the modified WRVT contains 2,872 people. This number is within the threshold of 3,000 people allowed in Section 73.525(c).

TV 6 station WCSH operates with 100 kW ERP from a site 198.19 kilometers distant from WRVT. The FM 62.3 dBu interference contour does not overlap the protected 47 dBu contour of WCSH.

The applicant proposes the use of registered tower ASR #1210439, constructed in 1985. Since this tower was built before March, 2001 and since no changes are being proposed to the tower structure itself, this application is excluded from environmental processing under 47. C.F.R. Section 1.1306.

Exhibit #22 is an R.F. emissions compliance statement, showing that workers and the general public are protected from excess radio frequency emissions.

The proposed station is within 320 kilometers of the US border with Canada, however there are no pertinent relationships with Canadian stations, applications or allotments. The proposed station is not within the specific critical distances to AM broadcast towers, FCC monitoring stations, Table Mountain and the West Virginia Quiet Zone. The applicant is aware of its responsibility under the rules to correct any blanketing interference it may cause within the period of one year from commencement of transmissions of newly authorized facilities.

Page #6 of Exhibit #1 is a statement of the qualifications of the preparer.

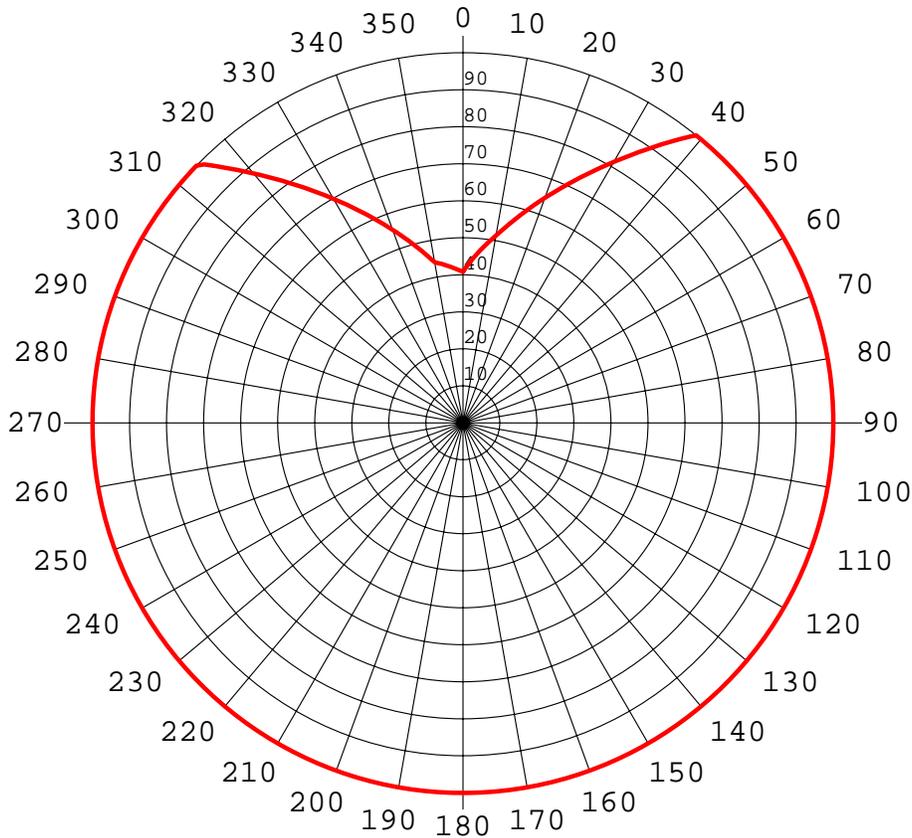
Kate Michler

¹ Study ERP = $H + V/A$, where H is horizontal power, V is Vertical Power and A is 40, as the interference area does not touch a city of 50,000 or more. Study ERP = $0.09 + 4.8/40 = 0.21$ kW

² The entire interference area is within the angle specified by Section 73.525(e)(1)(iii), which allows for an adjustment of 6 dB for television receiving antenna directivity to be added to each NCE-FM interference contour at points along that arc and outside the Grade A of the TV channel six station.

WRVT - Proposed Pattern

Ex #1, Pg #3



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	0.408	-0.97	0.80	-7.79	180	1.000	6.81	4.80	0.00
10	0.514	1.03	1.27	-5.79	190	1.000	6.81	4.80	0.00
20	0.647	3.03	2.01	-3.79	200	1.000	6.81	4.80	0.00
30	0.814	5.03	3.18	-1.79	210	1.000	6.81	4.80	0.00
40	1.000	6.81	4.80	0.00	220	1.000	6.81	4.80	0.00
50	1.000	6.81	4.80	0.00	230	1.000	6.81	4.80	0.00
60	1.000	6.81	4.80	0.00	240	1.000	6.81	4.80	0.00
70	1.000	6.81	4.80	0.00	250	1.000	6.81	4.80	0.00
80	1.000	6.81	4.80	0.00	260	1.000	6.81	4.80	0.00
90	1.000	6.81	4.80	0.00	270	1.000	6.81	4.80	0.00
100	1.000	6.81	4.80	0.00	280	1.000	6.81	4.80	0.00
110	1.000	6.81	4.80	0.00	290	1.000	6.81	4.80	0.00
120	1.000	6.81	4.80	0.00	300	1.000	6.81	4.80	0.00
130	1.000	6.81	4.80	0.00	310	1.000	6.81	4.80	0.00
140	1.000	6.81	4.80	0.00	320	0.880	5.70	3.72	-1.11
150	1.000	6.81	4.80	0.00	330	0.699	3.70	2.34	-3.11
160	1.000	6.81	4.80	0.00	340	0.555	1.70	1.48	-5.11
170	1.000	6.81	4.80	0.00	350	0.441	-0.30	0.93	-7.11
39	1.000	6.81	4.80	0.00	314	1.000	6.81	4.80	0.00

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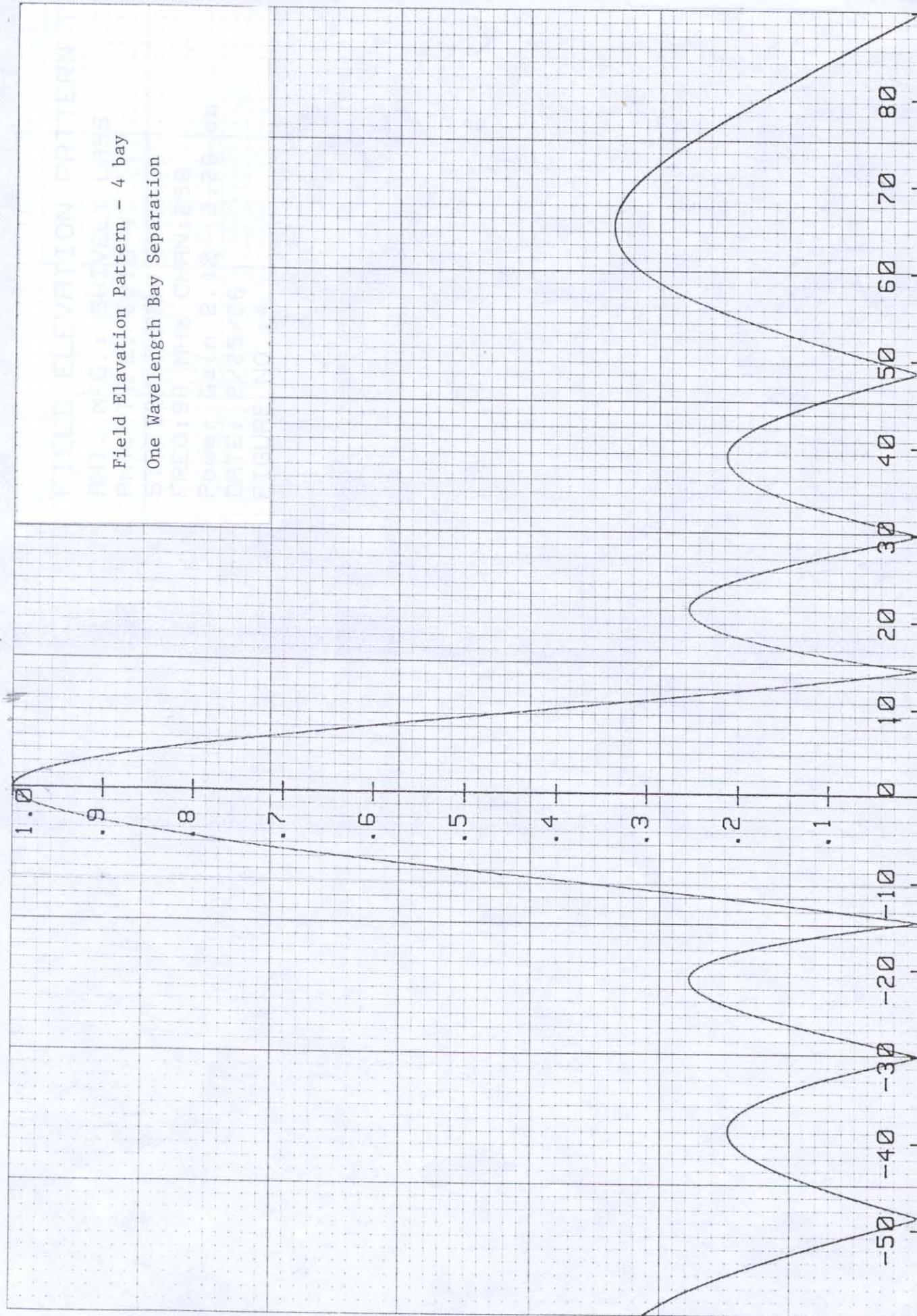
46 0700

10 X 10 TO THE INCH • 7 X 10 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

FIELD ELEVATION PATTERN

Field Elevation Pattern - 4 bay
One Wavelength Bay Separation

FREQ: 19.1118 CHAN: 234
Power Gain 2.12 3.26 db
DATE: 2/25/66
STRIPE NO. 14



Directional Antenna

The proposed custom directional antenna pattern meets the Commission's rules in that the radio frequency radiation does not change more than two dB for each ten degrees of azimuthal variation. Also, the maximum pattern attenuation in the deepest null is less than 15 dB. The pattern shown is a composite of the maximum field values in the horizontal and vertical planes.

The proposed antenna will be mounted on the sides of a tower that has been specified by the antenna manufacturer in accordance with the instructions provided by the manufacturer. The antenna will not be mounted on the top of a tower that includes a top mounted platform larger than the nominal cross-sectional area of the tower in the horizontal plane. No other antennas of any type will be mounted at the same tower level as the directional antenna nor within the horizontal or vertical distance specified by the manufacturer as being necessary to maintain proper directional operation. The antenna will be designed and tested by a major manufacturer of broadcast antennas known to the Commission. The pattern will be achieved through traditional methods including power-splitting, resonators and phasing.

Declaration:

I, Katherine A. Michler, have received a Bachelor of Science degree from the University of Northern Iowa, and;

That, I declare that I have received training as a technical consultant as a member of the staff of Doug Vernier Telecommunications Consultants, and;

That, I have been a member of the firm for over nine years, and;

That, my qualifications are a matter of record with the Federal Communications Commission, and;

That, I am an Associate Member (#20792) of the Society of Broadcast Engineers, Indianapolis, Indiana, and;

That, the consulting firm of Doug Vernier Telecommunications Consultants has been retained by Vermont Public Radio, and;

That, I have personally prepared these engineering showings, the technical information contained in same and the facts stated within are true to my knowledge, and;

That, under penalty of perjury, I declare that the foregoing is correct.

 Katherine A. Michler

Executed on August 8, 2007