



ENGINEERING STATEMENT
OF
JOHN F.X. BROWNE, P.E.
IN SUPPORT OF
APPLICATION FOR CONSTRUCTION PERMIT
FOR POST-TRANSITION DTV FACILITY
AND
5 MILE "FREEZE" WAIVER REQUEST
KFJX-DT
PITTSBURG, KS

Background

Surtsey Media, LLC (Surtsey) is the licensee of KFJX, located at Pittsburg, KS, has no digital facility (singleton) and operates its analog facility on Channel 14.

KFJX elected Channel 13 and has been allotted the post-transition DTV operation Appendix B facility parameters listed below (as specified in the Commission's 8th Report and Order):

Post-transition Facility (Ch. 13)

Coordinates: 37° 13' 15" N (NAD27)
94° 42' 25" W
ERP: 0.167 kW (omni)
HAAT: 302m



Since KFJX is a “singleton” operating its analog Channel 14 facility, its only certification option during the channel election process was the coverage of its licensed analog facility. However, the KFJX analog coverage area is based on a tri-lobe directional antenna. The translation of the UHF Channel 14 parameters to the KFJX allotted post-transition VHF Channel 13 facility has resulted in the specification of an antenna pattern (as part of the Appendix B facility parameters) based on the tri-lobe Channel 14 directional antenna pattern; this pattern cannot be achieved on Channel 13 with a practical antenna.

Since the Commission’s grant of Channel 13 as the KFJX post-transition channel, KFJX filed a Petition for Reconsideration of the Seventh Report and Order (MB Docket #87-268) requesting that its Appendix B facility parameters be amended to match the parameters of the existing Channel 13 digital facility in its market (KOAM-DT, omni-directional ERP of 6 kW at an HAAT of 302m) which shares facilities with KFJX. In the Memorandum Opinion and Order on Reconsideration of the Seventh Report and Order and Eighth Report and Order released on March 3, 2008 the Commission granted, in part, the Petition for Reconsideration facility requested by KFJX by amending its allotted Appendix B parameters to specify an omni-directional antenna and the height above average terrain of the KOAM digital facility. The Commission, however, limited the power of the KFJX Appendix B facility to 0.167 kW so that its coverage area would not exceed the coverage area of its analog facility. The Commission noted in its discussion that KFJX could seek a waiver of the “freeze” on maximization applications to expand its proposed facility coverage area up to 5 miles beyond the coverage area of the Appendix B facility before the freeze is lifted in August 2008.

Therefore, based on the 5 mile waiver policy established in the Report and Order for the Third Periodic Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television (R&O), KFJX is requesting an omni-directional ERP of 0.345 kW (instead of 0.167 kW) which will increase its coverage (while not expanding the Appendix B facility



coverage more than 5 miles) but will still not match the coverage area of the existing KOAM digital facility.

Antenna System and Tower

KFJX-DT will use an ERI omni-directional antenna (ETX-XB-8V2-7/13) which will be part of a new top-mounted KFJX/KOAM antenna stack that will take the place of the existing KOAM Channel 7 analog antenna. The antenna stack will be placed on the tower (ASR#1032005) at the coordinates specified above. The structure will have a new overall height of 614.7m AMSL (with appurtenances) which is 9.8m lower than the present overall tower height of 624.5m AMSL and the antenna will have a center of radiation of 606.7m AMSL (with a calculated HAAT of 335.8m). The FAA will be notified of the reduction in height of the existing structure.

Coverage

The entire principal community of Pittsburg, KS is well within the predicted F(50,90) 43 dBu contour using the proposed omni-directional 0.345 kW ERP.

Interference and Waiver Request

Surtsey requests a waiver of the "freeze" for KFJX under the Commission's new 5 mile "freeze" waiver policy established in the R&O. The proposed KFJX facility (0.345 kW, omni-directional ERP with an HAAT of 335.8m) satisfies all three of the Commission's requirements to qualify for the waiver:

1. Surtsey will use a new antenna to try avoiding a significant reduction in post-transition service from its analog service area. A map of the KFJX



analog service contour compared to its Appendix B facility service contour and the proposed facility service contour is attached, hereto, as Figure 1.

2. The expansion of the proposed KFJX post-transition facility service contour does not exceed its Appendix B service contour by more than 5 miles in any direction. Table 1, attached hereto, contains a table with a comparison of the distances to the contour (at increments of 10°) of the proposed KFJX post-transition facility vs. its Appendix B facility.
3. Based on studies conducted using software that emulates the software used by the FCC, the proposed KFJX facility would not cause more than 0.5% new interference to any other Appendix B facilities.

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 0.000004 mW/cm^2 which is less than 5% of the MPE for public exposure (0.2 mW/cm^2) at the proposed frequency and, therefore, the proposal is excluded from further consideration.

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

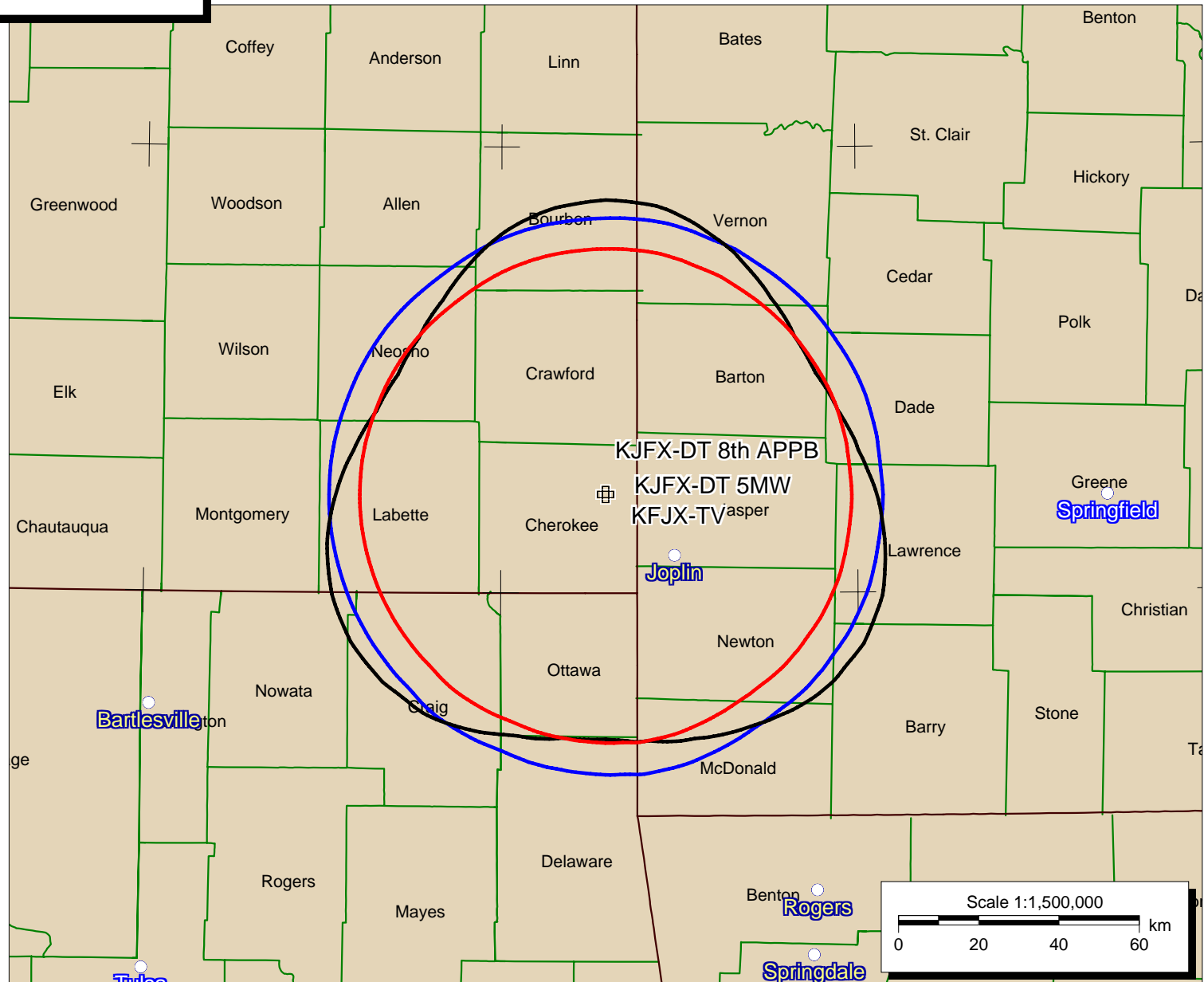
**Certification**

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.

John F.X. Browne, P.E.
March 11, 2008

Table 1
KFJX-DT
Appendix B Facility vs. Proposed Facility Contour Distance Table

<u>Degrees</u>	8th R & O Appendix B Facility ERP - 0.167 (O)	Proposed Facility ERP - 0.345 kW (O)	<u>Difference (miles)</u>
	<u>Distance (miles)</u>	<u>Distance (miles)</u>	
0	37.84	42.75	4.91
10	38.03	43.00	4.97
20	37.91	42.81	4.91
30	37.97	42.88	4.91
40	37.97	42.88	4.91
50	38.09	43.00	4.91
60	38.09	43.06	4.97
70	38.15	43.06	4.91
80	37.97	42.88	4.91
90	38.03	43.00	4.97
100	38.03	42.94	4.91
110	38.28	43.25	4.97
120	38.34	43.25	4.91
130	38.22	43.13	4.91
140	38.03	42.94	4.91
150	38.09	43.00	4.91
160	38.46	43.37	4.91
170	38.65	43.62	4.97
180	38.46	43.37	4.91
190	38.22	43.13	4.91
200	37.97	42.88	4.91
210	38.09	43.06	4.97
220	38.15	43.06	4.91
230	37.91	42.75	4.85
240	37.91	42.75	4.85
250	37.91	42.75	4.85
260	37.91	42.81	4.91
270	37.91	42.75	4.85
280	37.84	42.75	4.91
290	37.72	42.57	4.85
300	37.72	42.57	4.85
310	37.72	42.57	4.85
320	37.53	42.38	4.85
330	37.66	42.50	4.85
340	37.84	42.69	4.85
350	37.84	42.69	4.85



Black - KFJX-TV 64 dBu F(50,50) Grade B Contour

Red - KFJX-DT Appendix B (8th Report and Order) 36 dBu F(50,90) Noise Limited Contour

Blue - KFJX-DT Proposed 36 dBu F(50,90) Noise Limited Contour

03-11-08

Figure 1