

Exhibit 29 - Statement B
ENVIRONMENTAL CONSIDERATIONS
prepared for
CWA Broadcasting, Inc.
WINX-FM Cambridge, Maryland
Facility ID 14774
Ch. 232B1 21.6 kW 107 m

The instant proposal is not believed to have a significant environmental impact as defined under Section 1.1306 of the Commission's Rules. Consequently, preparation of an Environmental Assessment is not required.

Nature of The Proposal

CWA Broadcasting, Inc. ("*CWA*") is the licensee of WINX-FM, Channel 232A, Cambridge, Maryland. The instant application for construction permit proposes to employ the existing transmitting location utilizing a directional antenna system with an increase in ERP with a one-step upgrade from Class A to Class B1.

The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. No change in overall structure height is proposed, thus no change in current structure marking and lighting requirements is anticipated. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

Human Exposure to Radiofrequency Radiation

The proposed operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

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The WINX antenna will be installed such that its center of radiation is 98 meters above ground level. An effective radiated power (“ERP”) of 21.6 kilowatts, circularly polarized, will be employed. According to elevation pattern data for a typical four bay FM antenna, the proposed antenna may have a relative field of as much as 40 percent from 20 to 90 degrees below the horizontal plane (i.e.: below the antenna). Thus, a value of 40 percent relative field is used for this calculation. The “uncontrolled/general population” limit specified in §1.1310 for FM Broadcast stations is 200 $\mu\text{W}/\text{cm}^2$.

OET-65’s formula for FM is essentially equation (10) in OET-65.

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

S	=	power density in microwatts/cm ²
ERP	=	total (average) ERP in Watts
F	=	relative field factor
D	=	distance in meters

Using this formula, the proposed facility would contribute a power density of 25.0 $\mu\text{W}/\text{cm}^2$ at locations two meters above ground level near the base of the antenna support structure or 12.5 percent of the general population/uncontrolled limit. At ground level locations away from the building, the calculated RF power density is even lower, due to the increasing distance from the transmitting antenna.

There are no other known broadcast facilities on the same antenna support structure or nearby. §1.1307(b)(3) states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the calculations show that instant situation may not meet the five percent exclusion test at nearby ground level areas, RF exposure will be taken following construction (or detailed calculations will

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be made) to ensure that total RF energy levels at all publicly accessible areas are within the bounds of the FCC limits for general population. Appropriate mitigative measures will be taken (i.e., restriction of access to areas and/or facility modification) in the event that measurements reveal locations subject to RF energy exceeding the applicable FCC limit.

Safety of Tower Workers and the General Public

A site exposure policy will continue to be employed to protect the general public. The policy will also continue to address how to protect maintenance workers from excessive exposure when work must be performed on the tower in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. On-site RF exposure measurements may also be undertaken to establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.

Conclusion

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

ENGINEERING EXHIBIT

Application for FM Radio Station Construction Permit

prepared for

CWA Broadcasting, Inc.
WINX-FM Cambridge, Maryland
Facility ID 14774
Ch. 232B1 21.6 kW 107 m

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FCC Form 301, Section III-B

Exhibit 28

Statement A	Nature of Proposal, Proposed Antenna System & Allocation Considerations With §73.215 Contour Protection
Figure 1	Horizontal Plane Radiation Envelope
Figure 2	Contour Protection - Pertinent Protected and Interfering Contours for Proposed WINX-FM with WWZK(FM) and WDAC(FM).
Figure 2A	Detail View of Contour Protection - Pertinent Protected and Interfering Contours for Proposed WINX-FM with WWZK(FM)

Exhibit 29

Statement B	Environmental Considerations
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This material supplies a "hard copy" of the engineering portions of this application as entered July 16, 2002 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

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Cavell, Mertz & Davis, Inc.

Section III-B - FM Engineering																																																																																																											
TECHNICAL SPECIFICATIONS																																																																																																											
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.																																																																																																											
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3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 38 Minutes 37 Seconds 49 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 76 Minutes 3 Seconds 24 <input checked="" type="radio"/> West <input type="radio"/> East																																																																																																										
4.	One Step Proposal Allotment Coordinates: (NAD 27) <input type="checkbox"/> Not Applicable Latitude: Degrees 38 Minutes 29 Seconds 39 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 76 Minutes 13 Seconds 21 <input checked="" type="radio"/> West <input type="radio"/> East																																																																																																										
5.	Antenna Structure Registration Number: 1037391 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA																																																																																																										
6.	Overall Tower Height Above Ground Level:								111.3meters																																																																																																		
7.	Height of Radiation Center Above Mean Sea Level:								110 meters(H)		110 meters(V)																																																																																																
8.	Height of Radiation Center Above Ground Level:								98meters(H)		98meters(V)																																																																																																
9.	Height of Radiation Center Above Average Terrain:								107meters(H)		107meters(V)																																																																																																
10.	Effective Radiated Power:								21.6 kW(H)		21.6 kW(V)																																																																																																
11.	Maximum Effective Radiated Power: <input checked="" type="checkbox"/> Not Applicable (Beam-Tilt Antenna ONLY)								kW(H)		kW(V)																																																																																																
12.	Directional Antenna Relative Field Values: <input type="checkbox"/> Not applicable (Nondirectional) Rotation (Degrees): <input checked="" type="checkbox"/> No Rotation																																																																																																										
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th></tr> </thead> <tbody> <tr><td>0</td><td>0.794</td><td>10</td><td>0.631</td><td>20</td><td>0.501</td><td>30</td><td>0.398</td><td>40</td><td>0.316</td><td>50</td><td>0.251</td></tr> <tr><td>60</td><td>0.251</td><td>70</td><td>0.251</td><td>80</td><td>0.282</td><td>90</td><td>0.355</td><td>100</td><td>0.447</td><td>110</td><td>0.562</td></tr> <tr><td>120</td><td>0.794</td><td>130</td><td>1</td><td>140</td><td>1</td><td>150</td><td>1</td><td>160</td><td>1</td><td>170</td><td>1</td></tr> <tr><td>180</td><td>1</td><td>190</td><td>1</td><td>200</td><td>1</td><td>210</td><td>1</td><td>220</td><td>1</td><td>230</td><td>1</td></tr> <tr><td>240</td><td>1</td><td>250</td><td>1</td><td>260</td><td>1</td><td>270</td><td>1</td><td>280</td><td>1</td><td>290</td><td>1</td></tr> <tr><td>300</td><td>1</td><td>310</td><td>1</td><td>320</td><td>1</td><td>330</td><td>1</td><td>340</td><td>0.794</td><td>350</td><td>0.794</td></tr> <tr> <td>Additional Azimuths</td><td></td><td>75</td><td>0.251</td><td colspan="8"></td></tr> </tbody> </table>												Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	0	0.794	10	0.631	20	0.501	30	0.398	40	0.316	50	0.251	60	0.251	70	0.251	80	0.282	90	0.355	100	0.447	110	0.562	120	0.794	130	1	140	1	150	1	160	1	170	1	180	1	190	1	200	1	210	1	220	1	230	1	240	1	250	1	260	1	270	1	280	1	290	1	300	1	310	1	320	1	330	1	340	0.794	350	0.794	Additional Azimuths		75	0.251								
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NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.

CERTIFICATION

AUXILIARY ANTENNA APPLICANTS ARE NOT REQUIRED TO RESPOND TO ITEMS 13-16. PROCEED TO ITEM 17.

13.	Allotment. The proposed facility complies with the allotment requirements of 47 C.F.R. Section 73.203.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 21]
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14.	Community Coverage. The proposed facility complies with 47 C.F.R. Section 73.315.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 22]
15.	Main Studio Location. The proposed main studio location complies with 47 C.F.R. Section 73.1125.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 23]
16.	Interference. The proposed facility complies with all of the following applicable rule sections: Check all those that apply: Separation Requirements. <input checked="" type="checkbox"/> a) 47 C.F.R. Section 73.207 Grandfathered Short-Spaced. <input type="checkbox"/> b) 47 C.F.R. Section 73.213(a) with respect to station(s): [Exhibit 25] Exhibit required <input type="checkbox"/> c) 47 C.F.R. Section 73.213(b) with respect to station(s): [Exhibit 26] Exhibit required <input type="checkbox"/> d) 47 C.F.R. Section 73.213(c) with respect to station(s): [Exhibit 27] Exhibit required. Contour Protection <input checked="" type="checkbox"/> e) 47 C.F.R. Section 73.215 with respect to station(s): [Exhibit 28] Exhibit required.	<input type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 24]
17.	Environmental Protection Act. The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine compliance through the use of the RF worksheets in Appendix A, an Exhibit is required. By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 29]
PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.		

SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name MARK B. PEABODY	Relationship to Applicant (e.g., Consulting Engineer) CONSULTANT	
Signature	Date 7/16/2002	
Mailing Address CAVELL, MERTZ & DAVIS, INC. 7839 ASHTON AVENUE		
City MANASSAS	State or Country (if foreign address) VA	Zip Code 20109 -
Telephone Number (include area code) 7033929090	E-Mail Address (if available) MPEABODY@CMDCONSULTING.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION

Exhibits

Exhibit 21

Description: SEE EXHIBIT 28

SEE EXHIBIT 28 - NATURE OF PROPOSAL

Attachment 21

Exhibit 28

Description: EXHIBIT 28 - NATURE OF PROPOSAL - ANTENNA SYSTEM AND ALLOCATIONS CONSIDERATIONS

SEE ATTACHED EXHIBIT 28 - NATURE OF PROPOSAL, PROPOSED ANTENNA SYSTEM, AND ALLOCATIONS CONSIDERATIONS WITH 73.215 CONTOUR PROTECTION TOWARD WWZK(FM) & WDAC(FM).

Attachment 28

Description	Type	Conversion	
		Status	File
Exhibit 28 - Nature of Proposal, Proposed Antenna System & Allocations Considerations with §73.215 Contour Protection	Adobe Acrobat File	not needed	PDF

Exhibit 29

Description: EXHIBIT 29 - ENVIRONMENTAL CONSIDERATIONS

SEE ATTACHED EXHIBIT 29

Attachment 29

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		Status	File
Exhibit 29 - Environmental Considerations	Adobe Acrobat File	not needed	PDF