## WNYZ-LP MINOR CHANGE APPLICATION FOR CP BDFCDVL-20150120AIE CH 6 LPTV DTV 3 kW MAX DA NEW YORK, NEW YORK ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS JUNE 2021

The facilities proposed herein are believed to fully qualify as a minor change as the proposed site location is 2.7 kilometers from the licensed site and there is substantial contour overlap between the proposed and licensed facilities.

The applicant proposes herein to relocate to an established rooftop communications site in Manhattan. The proposed antenna system consists of a PSI PSILV5CLOG-6 Custom, log periodic, 2 bay, low band VHF antenna, with 0.5 degrees of electrical beam tilt. The maximum relative field in the elevation pattern is based on 1.0 as a fully conservative value. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 1.0 has been used to calculate the power density 2 meters above ground. The antenna RC AGL is 216 meters. The maximum power density is $4.4 \mathrm{uw} / \mathrm{cm}$ squared calculated for an ERP of 3,000 watts H . polarization and 3,000 watts V. polarization. This value is $2.18 \%$ of the Public Exposure MPE per section 1.1310. Based on this analysis it is believed that the proposed facility is in compliance with OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Guidelines.

The proposed structure is existing.

Below is a copy of the TVStudy interference analysis for CH 6 based on the facilities described above with the antenna orientation of 100 degrees true. As can be seen at the conclusion of the report there is no impermissible ISIX or co-channel received interference above $7.5 \%$. It is believed that the proposed facility provides full protection to other television facilities.

## TVStudy Report

Study created: 2021.06.25 13:27:27
Study build station data: LMS TV 2021-06-24

Proposal: WNYZ-LP D6 LD CP NEW YORK, NY
File number: BDFCDVL20150120AIE
Facility ID: 56043
Station data: User record
Record ID: 819 Country: U.S.

Stations potentially affected by proposal:

| IX | Call | Chan | Svc Status | City, State |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| No | WMDE | D5 | DT | LIC | DOVER, DE |
| No | WNYX-LD | D5 | LD | LIC | NEW YORK, NY |
| No | WXNJ-LD | D5+ | LD | LIC | PORT JERVIS, NY |
| No | WRGB | D5 | LD | LIC | SCHENECTADY, NY |
| No | WOWZ-LP | N6 | TX | APP | SALISBURY, MD |
| No | WOWZ-LP | D6z | LD | LIC | SALISBURY, MD |
| No | WOWZ-LP | N6z | TX | CP | SALISBURY, MD |
| No | W06DH-D | D6 | LD | LIC | WESTMORELAND, NH |
| No | W06DH-D | D6 | LD | APP | WESTMORELAND, NH |
| No | WNDR-LP | N6z | TX | LIC | AUBURN, NY |
| No | WXXW-LP | D6- | LD | CP | BINGHAMTON, NY |
| No | WXXW-LP | N6- | TX | LIC | BINGHAMTON, NY |
| Yes | WRGB | D6 | DT | LIC | SCHENECTADY, NY |
| Yes | WRGB | D6 | DT | APP | SCHENECTADY, NY |
| No | WVOA-LP | D6+ | LD | CP | WESTVALE, NY |
| No | WVOA-LP | N6+ | TX | LIC | WESTVALE, NY |
| No | WKBS-TV | D6 | DT | LIC | ALTOONA, PA |
| Yes | WPVI-TV | D6 | DT | APP | PHILADELPHIA, PA |
| Yes | WPVI-TV | D6 | DT | LIC | PHILADELPHIA, PA |
| No | WDCN-LP | N6 | TX | APP | FAIRFAX, VA |

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

| File Number | Distance |
| :--- | :---: |
| BLANK0000001038 | 271.4 km |
| BLANK0000060581 | 2.7 |
| BLANK0000121300 | 24.8 |
| BLANK0000129768 | 205.2 |
| BLANK0000071750 | 288.1 |
| BLTVL20090326ADA | 288.1 |
| BPTVL20140210ABX | 289.4 |
| BLANK0000150696 | 284.3 |
| BLANK0000150888 | 289.3 |
| BLTVL20120312AAI | 325.8 |
| BLANK0000144350 | 220.6 |
| BLTVL20060515AAC | 219.7 |
| BMLCDT20110816AAF | 206.6 |
| BLANK0000035659 | 206.6 |
| BLANK0000150238 | 313.2 |
| BLTVL20090622AAX | 313.2 |
| BLANK0000084211 | 378.2 |
| BLANK0000035671 | 134.8 |
| BLCDT20111019ACJ | 135.1 |
| BLANK0000071752 | 341.5 |
| BLANK0000149663 | 349.0 |
| BLTVL20070410ACR | 341.5 |


| Channel: D6 |  |  |  |
| :---: | :---: | :---: | :---: |
| Mask: Full Service |  |  |  |
| Latitude: 40462.30 N (NAD83) |  |  |  |
| Longitude: 735740.40 W |  |  |  |
| ```Height AMSL: 241.0 m HAAT: 0.0 m Peak ERP: 3.00 kW Antenna: PSI LOG 100.0 deg``` |  |  |  |
|  |  |  |  |
| ```Elev Pattrn: Generic Elec Tilt: 0.50``` |  |  |  |
| 43.0 dBu contour: |  |  |  |
| Azimuth | ERP | HAAT | Distance |
| 0.0 deg | 0.011 kW | 194.7 m | 21.3 km |
| 45.0 | 0.337 | 230.9 | 45.0 |
| 90.0 | 2.82 | 225.8 | 61.5 |
| 135.0 | 1.49 | 220.2 | 56.0 |
| 180.0 | 0.000 | 226.3 | 2.3 |
| 225.0 | 0.000 | 239.1 | 2.4 |
| 270.0 | 0.000 | 228.2 | 2.3 |
| 315.0 | 0.002 | 225.6 | 15.3 |

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 224 m
Distance to Canadian border: 394.7 km
Distance to Mexican border: 2677.6 km

Conditions at FCC monitoring station: Laurel MD
Bearing: 234.8 degrees Distance: 301.7 km
Proposal is not within the West Virginia quiet zone area
Conditions at Table Mountain receiving zone:
Bearing: 278.8 degrees Distance: 2630.8 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km
Maximum new IX to full-service and Class A: 0.50\%
Maximum new IX to LPTV: 2.00\%
**MX with BLANK0000035671 APP scenario 1, 7.07\% interference received
Proposal receives 6.04\% interference from scenario 2
**MX with scenario 3, 7.47\% interference received
**MX with BLANK0000035659 APP scenario 4, 6.54\% interference received

## ISIX

tvstudy v2.2.5 (4uoc83)
Database: 127.0.0.1, Study: BDFCDVL20150120AIE \#1076, Model: Longley-Rice
Start: 2021.06.25 13:27:27
Study created: 2021.06.25 13:27:27
Study build station data: LMS TV 2021-06-24
Proposal: WNYZ-LP D6 LD CP NEW YORK, NY
File number: BDFCDVL20150120AIE
Facility ID: 56043
Station data: User record
Record ID: 819
Country: U.S.
Stations potentially affected by proposal:

| IX | Call | Chan | Svc Status | City, State | File Number | Distance |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| No | WMDE | D5 | DT | LIC | DOVER, DE | BLANK0000001038 | 271.4 km |
| No | WNYX-LD | D5 | LD | LIC | NEW YORK, NY | BLANK0000060581 | 2.7 |
| No | WXNJ-LD | D5+ | LD | LIC | PORT JERVIS, NY | BLANK0000121300 | 24.8 |
| No | WRGB | D5 | LD | LIC | SCHENECTADY, NY | BLANK0000129768 | 205.2 |
| No | WOWZ-LP | N6 | TX | APP | SALISBURY, MD | BLANK0000071750 | 288.1 |
| No | WOWZ-LP | D6z | LD | LIC | SALISBURY, MD | BLTVL20090326ADA | 288.1 |
| No | WOWZ-LP | N6z | TX | CP | SALISBURY, MD | BPTVL20140210ABX | 289.4 |
| No | W06DH-D | D6 | LD | LIC | WESTMORELAND, NH | BLANK0000150696 | 284.3 |
| No | W06DH-D | D6 | LD | APP | WESTMORELAND, NH | BLANK0000150888 | 289.3 |
| No | WNDR-LP | N6z | TX | LIC | AUBURN, NY | BLTVL20120312AAI | 325.8 |
| No | WXXW-LP | D6- | LD | CP | BINGHAMTON, NY | BLANK0000144350 | 220.6 |
| No | WXXW-LP | N6- | TX | LIC | BINGHAMTON, NY | BLTVL20060515AAC | 219.7 |
| Yes | WRGB | D6 | DT | LIC | SCHENECTADY, NY | BMLCDT20110816AAF | 206.6 |
| Yes | WRGB | D6 | DT | APP | SCHENECTADY, NY | BLANK0000035669 | 206.6 |
| No | WVOA-LP | D6+ | LD | CP | WESTVALE, NY | BLANK0000150238 | 313.2 |
| No | WVOA-LP | N6+ | TX | LIC | WESTVALE, NY | BLTVL20090622AAX | 313.2 |
| No | WKBS-TV | D6 | DT | LIC | ALTOONA, PA | BLANK0000084211 | 378.2 |
| Yes | WPVI-TV | D6 | DT | APP | PHILADELPHIA, PA | BLANK0000035671 | 134.8 |
| Yes | WPVI-TV | D6 | DT | LIC | PHILADELPHIA, PA | BLCDT20111019ACJ | 135.1 |
| No | WDCN-LP | N6 | TX | APP | FAIRFAX, VA | BLANK0000071752 | 341.5 |
| No | WDCN-LP | D6 | LD | CP | FAIRFAX, VA | BLANK00001496663 | 349.0 |

No non-directional AM stations found within 0.8 km
No directional AM stations found within 3.2 km

Record parameters as studied:
Channel: D6
Mask: Full Service
Latitude: 40462.30 N (NAD83)
Longitude: 735740.40 W
Height AMSL: 241.0 m
HAAT: 0.0 m
eak ERP: 3.00 kW
Antenna: PSI LOG 100.0 deg
Elev Pattrn: Generic
Elec Tilt: 0.50

| 43.0 dBu contour: |  |  |  |
| :---: | :---: | :---: | :---: |
| Azimuth | ERP | HAAT | Distance |
| 0.0 deg | 0.011 | kW | 194.7 m |
| 45.0 | 0.337 | 230.9 | 45.0 |
| 90.0 | 2.82 | 225.8 | 61.5 |
| 135.0 | 1.49 | 220.2 | 56.0 |
| 180.0 | 0.000 | 226.3 | 2.3 |
| 225.0 | 0.000 | 239.1 | 2.4 |
| 270.0 | 0.000 | 228.2 | 2.3 |
| 315.0 | 0.002 | 225.6 | 15.3 |

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 224 m

Distance to Canadian border: 394.7 km
Distance to Mexican border: 2677.6 km
Conditions at FCC monitoring station: Laurel MD
Bearing: 234.8 degrees Distance: 301.7 km
Proposal is not within the West Virginia quiet zone area
Conditions at Table Mountain receiving zone:
Bearing: 278.8 degrees Distance: 2630.8 km

Study cell size: 1.00 km
Profile point spacing: 1.00 km
Maximum new IX to full-service and Class A: 0.50\%
Maximum new IX to LPTV: 2.00\%


Interference to BMLCDT20110816AAF LIC scenario 2




Interference to BLCDT20111019ACJ LIC scenario 2

| Desired: | Call | Chan | Svc | Status | City, State |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | WPVI-TV | D6 | DT | LIC | PHILADELPHIA, PA |
| Undesireds: | WNYZ-LP | N6+ | TX | LIC | NEW YORK, NY |
|  | WNYZ-LP | D6 | LD | CP | NEW YORK, NY |
|  | WMDE | D5 | DT | LIC | DOVER, DE |
|  | WRGB | D6 | DT | APP | SCHENECTADY, NY |
|  | WKBS-TV | D6 | DT | LIC | ALTOONA, PA |


| File Number | Distance |
| :--- | :--- |
| BLCDT20111019ACJ |  |
| BLTVL20080128ACC | 135.0 km |
| BDFCDVL20150120AIE | 135.1 |
| BLANK0000001038 | 141.2 |
| BLANK0000035659 | 304.9 |
| BLANK0000084211 | 277.3 |


| Service area | Terrain-limited |  |  |  | IX-free, before |  | IX-free, after |  | $\begin{array}{ll} \text { Percent New IX } \\ -0.16 & -0.37 \end{array}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46069.8 13,939,050 | 44703 | . 1 | 13,639,170 |  | 42626.7 | 12,701,732 | 42695.2 | 12,748,280 |  |  |
| Undesired |  |  | Total IX |  | Unique IX, before |  | Unique IX, after |  |  |  |
| WNYZ-LP N6+ TX LIC | 587.8 |  | 311,983 |  | 224.7 | 49,152 |  |  |  |  |
| WNYZ-LP D6 LD CP | 309.2 |  | 111,581 |  |  |  | 156.2 | 2,604 |  |  |
| WMDE D5 DT LIC | 71.5 |  | 7,410 |  | 68.5 | 5,776 | 68.5 | 5,776 |  |  |
| WRGB D6 DT APP | 1243.9 |  | 772,476 |  | 818.0 | 497,804 | 1028.1 | 651,658 |  |  |
| WKBS-TV D6 DT LIC | 602.1 |  | 121,875 |  | 536.2 | 108,400 | 536.2 | 108,400 |  |  |
| Interference to proposal scenario 1 **MX: 7.07\% interference received |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Call | Chan | Svc | Status | Ci | , State |  | File Nu |  | Distance |  |
| Desired: WNYZ-LP | D6 | LD | CP |  | YORK, |  | BDFCDVL | 150120AIE |  |  |
| Undesireds: |  | LD | LIC | NEW YORK, NY |  |  | BLANK0000060581 |  | 2.7 km |  |
|  | N6 | TX | APP |  | SBURY, |  | BLANK0 0 | 071750 | 288.1 |  |
|  | D6 | LD | LIC |  | MORELAN | , NH | BLANK0 0 | 150696 | 284.3 |  |
|  | D6- | LD | CP |  | GHAMTON, | NY | BLANK00 | 144350 | 220.6 |  |
|  | D6 | DT | LIC |  | NECTADY |  | BMLCDT2 | 10816AAF | 206.6 |  |
|  | D6+ | LD | CP |  | VALE, |  | BLANK0 0 | 150238 | 313.2 |  |
|  | D6 | DT | APP | PHILADELPHIA, PA |  |  | BLANK0000035671 |  | 134.8 |  |
| Service area | Terrain-limited |  |  |  |  | IX-free | Percent IX |  |  |  |
| 3962.5 8,951,277 | 3956.5 |  | 8,944,823 |  | 3604.5 | 8,312,371 | 8.90 | 7.07 |  |  |
| Undesired | Total IX |  |  |  |  | Unique IX | Prent Unique IX |  |  |  |
| WNYX-LD D5 LD LIC | 31.8 |  | 298,880 |  | 25.8 | 271,889 | 0.65 | 3.04 |  |  |
| WRGB D6 DT LIC | 68.4 |  | 43,296 |  | 6.0 | 6,590 | 0.15 | 0.07 |  |  |
| WPVI-TV D6 DT APP | 320.3 |  | 353,973 |  | 252.8 | 290,472 | 6.39 | 3.25 |  |  |

Interference to proposal scenario 2
6.04\% interference received

|  | Call | Chan | Svc Status | City, State | File Number |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Desired: | WNYZ-LP | D6 | LD | CP | NEW YORK, NY | BDFCDVL20150120AIE |


|  | Service area | Terrain-limited |  | IX-free | Percent IX |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 3962.5 | $8,951,277$ | 3956.5 | $8,944,823$ | 3747.0 | $8,404,181$ | 5.30 |


| Undesired |  | Total IX |  | Unique IX | Prent Unique IX |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| WNYX-LD D5 LD LIC | 31.8 | 298,880 | 26.8 | 271,889 | 0.68 | 3.04 |
| WRGB D6 DT LIC | 68.4 | 43,296 | 12.9 | 8,292 | 0.33 | 0.09 |
| WPVI-TV D6 DT LIC | 169.8 | 260,461 | 110.3 | 198,662 | 2.79 | 2.22 |

## Interference to proposal scenario 3

**MX: 7.47\% interference received


Interference to proposal scenario 4
**MX: 6.54\% interference received

|  | Call | Chan | Svc | Status | City, State |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Desired: | WNYZ-LP | D6 | LD | CP | NEW YORK, NY |
| Undesireds: | WNYX-LD | D5 | LD | LIC | NEW YORK, NY |
|  | WOWZ-LP | N6 | TX | APP | SALISBURY, MD |
|  | W0 6DH-D | D6 | LD | LIC | WESTMORELAND, NH |
|  | WXXW-LP | D6- | LD | CP | BINGHAMTON, NY |
|  | WRGB | D6 | DT | APP | SCHENECTADY, NY |
|  | WVOA-LP | D6+ | LD | CP | WESTVALE, NY |
|  | WPVI-TV | D6 | DT | LIC | PHILADELPHIA, PA |


| Service area | Terrain-limited |  | 3719.2 | $\begin{array}{r} \text { IX-free } \\ 8,360,207 \end{array}$ | Percent IX |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3962.5 8,951,277 | 3956.5 | 8,944,823 |  |  | 6.00 | 6.54 |
| Undesired |  | Total IX |  | Unique IX | Prent | e IX |
| WNYX-LD D5 LD LIC | 31.8 | 298,880 | 26.8 | 271,889 | 0.68 | 3.04 |
| WRGB D6 DT APP | 126.0 | 166,650 | 40.7 | 52,266 | 1.03 | 0.58 |
| WPVI-TV D6 DT LIC | 169.8 | 260,461 | 80.5 | 119,282 | 2.04 | 1.33 |

The foregoing was prepared on behalf of Sound of Long Island, Inc. by CIarence M. Beverage of Communications Technologies, Inc., Medford, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.


Clarence M. Beverage
for Communications Technologies, Inc.
Medford, New Jersey June 25, 2021

