

**Application for Modification
Licensed Facility
Engineering Exhibit**

KGPX – Spokane, WA

Facility ID: 81694

Licensee "ION MEDIA SPOKANE LICENSE, INC" is currently authorized to operate on DTV channel 34. This license was unaffected by the Spectrum Repack. The Antenna Structure Registration Number is 1033014 with a Latitude of 47° 35' 57.2" N+ and a Longitude of 117° 18' 1.2" W-.

The purpose of this application is to request authority to modify the licensed facility (0000008553) to operate from Antenna Structure Registration Number 1060807 with a Latitude of 47° 35' 35" N+ and a Longitude of 117° 17' 50" W-. The HAAT is 468.84 m (AGL 68.58 m) with an AMSL of 1171.58 m. An ERP of 60 kW will be utilized.

Due to the close proximity of the current and proposed transmit locations the stations noise limited contour and population are virtually unaffected.

The station is filing this request to change towers because the station is moving to a new tower location. To the extent necessary, the station requests an exemption or waiver of any current freeze on the filing of construction permit modifications as needed to process and approve this application.

Antenna System

A directional side mounted antenna will be utilized. It will be affixed to an existing guyed tower structure and will not increase the overall height of the structure. Any vertical component will not exceed the horizontal pattern in any direction. Elevation and Azimuth patterns are attached.

RF Hazard (Environmental)

Human Exposure measurements were calculated using the OET- 65 equation and the outcome is compliant with FCC 1.1310. Furthermore, the calculation is under 5% of the limit categorically excluding the application from further environmental evaluations.

| Calculated Maximum | Calculated Exposure | Percent of Limit |
|---------------------------|----------------------------|-------------------------|
| mW/cm ² | mW/cm ² | |
| 0.395 | 0.005326 | 1.35% |

The station will coordinate with other(s) to comply with access, antenna and/or tower issues related to RF Exposure

Broadcast Facility

§73.616 Interference Caused

A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-07-11 indicates that there is no excessive new interference created. This study used cell spacing of 2 km and a profile spacing of 1 km.

**Application for Modification
Licensed Facility
Engineering Exhibit**

§73.622 Maximum ERP and Antenna Height

The application does not exceed the maximum ERP for the specified HAAT.

§73.623 DTV Allotments

The application does not change the DTV Table of Allotments.

§73.625 Coverage of Principal Community

The application's ERP will sufficiently cover Spokane, Washington. RF coverage analysis attached.

§73.1030 Radio, Research and Receiving Locations

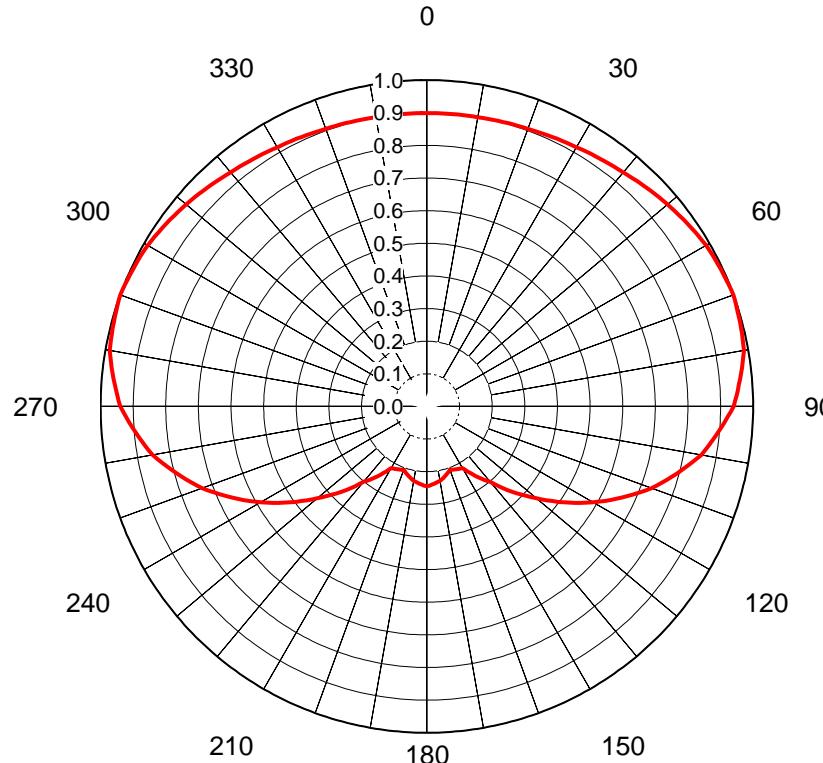
A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-07-11 indicates that no excessive interference to any "protected" locations. As such, no coordination or notification is required.

§73.1650 International Agreements

The application's transmit location is 156.4 km from Canada. A calculation using *TVStudy* version 2.2.5 using an LMS database dated 2018-07-11 indicates that this application causes no new interference to any Canadian stations.

The application's transmit location is 1666.2 km from Mexico. As such, no coordination or notification is required.

Dielectric®



AZIMUTH PATTERN Horizontal Polarization

In Free Space

| | |
|--------------|---------------------|
| Proposal No. | C-71133-1 |
| Date | 14-May-18 |
| Call Letters | KGPX |
| Channel | 34 |
| Frequency | 593 MHz |
| Antenna Type | TLP-12W/VP-R |
| Gain | 1.7 (2.31dB) |
| Calculated | |

| Deg | Value |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0 | 0.899 | 36 | 0.928 | 72 | 0.997 | 108 | 0.757 | 144 | 0.268 | 180 | 0.245 | 216 | 0.268 | 252 | 0.757 | 288 | 0.997 | 324 | 0.928 |
| 1 | 0.899 | 37 | 0.930 | 73 | 0.996 | 109 | 0.745 | 145 | 0.260 | 181 | 0.244 | 217 | 0.277 | 253 | 0.769 | 289 | 0.999 | 325 | 0.927 |
| 2 | 0.899 | 38 | 0.932 | 74 | 0.995 | 110 | 0.733 | 146 | 0.252 | 182 | 0.242 | 218 | 0.285 | 254 | 0.781 | 290 | 1.000 | 326 | 0.925 |
| 3 | 0.899 | 39 | 0.934 | 75 | 0.993 | 111 | 0.719 | 147 | 0.243 | 183 | 0.241 | 219 | 0.294 | 255 | 0.794 | 291 | 0.999 | 327 | 0.923 |
| 4 | 0.899 | 40 | 0.936 | 76 | 0.992 | 112 | 0.704 | 148 | 0.235 | 184 | 0.240 | 220 | 0.302 | 256 | 0.806 | 292 | 0.998 | 328 | 0.921 |
| 5 | 0.900 | 41 | 0.939 | 77 | 0.991 | 113 | 0.689 | 149 | 0.226 | 185 | 0.238 | 221 | 0.315 | 257 | 0.818 | 293 | 0.996 | 329 | 0.919 |
| 6 | 0.900 | 42 | 0.941 | 78 | 0.990 | 114 | 0.675 | 150 | 0.218 | 186 | 0.237 | 222 | 0.329 | 258 | 0.830 | 294 | 0.995 | 330 | 0.917 |
| 7 | 0.900 | 43 | 0.944 | 79 | 0.988 | 115 | 0.660 | 151 | 0.217 | 187 | 0.236 | 223 | 0.343 | 259 | 0.842 | 295 | 0.994 | 331 | 0.916 |
| 8 | 0.900 | 44 | 0.947 | 80 | 0.987 | 116 | 0.646 | 152 | 0.216 | 188 | 0.235 | 224 | 0.356 | 260 | 0.854 | 296 | 0.993 | 332 | 0.915 |
| 9 | 0.900 | 45 | 0.950 | 81 | 0.982 | 117 | 0.632 | 153 | 0.215 | 189 | 0.233 | 225 | 0.370 | 261 | 0.863 | 297 | 0.992 | 333 | 0.913 |
| 10 | 0.900 | 46 | 0.952 | 82 | 0.978 | 118 | 0.617 | 154 | 0.214 | 190 | 0.232 | 226 | 0.383 | 262 | 0.871 | 298 | 0.990 | 334 | 0.912 |
| 11 | 0.900 | 47 | 0.955 | 83 | 0.973 | 119 | 0.603 | 155 | 0.213 | 191 | 0.229 | 227 | 0.396 | 263 | 0.880 | 299 | 0.989 | 335 | 0.911 |
| 12 | 0.901 | 48 | 0.958 | 84 | 0.968 | 120 | 0.588 | 156 | 0.211 | 192 | 0.227 | 228 | 0.410 | 264 | 0.888 | 300 | 0.988 | 336 | 0.910 |
| 13 | 0.901 | 49 | 0.960 | 85 | 0.964 | 121 | 0.573 | 157 | 0.210 | 193 | 0.225 | 229 | 0.424 | 265 | 0.897 | 301 | 0.985 | 337 | 0.909 |
| 14 | 0.902 | 50 | 0.963 | 86 | 0.959 | 122 | 0.558 | 158 | 0.209 | 194 | 0.222 | 230 | 0.437 | 266 | 0.906 | 302 | 0.983 | 338 | 0.907 |
| 15 | 0.902 | 51 | 0.965 | 87 | 0.954 | 123 | 0.543 | 159 | 0.208 | 195 | 0.220 | 231 | 0.452 | 267 | 0.914 | 303 | 0.980 | 339 | 0.906 |
| 16 | 0.903 | 52 | 0.968 | 88 | 0.949 | 124 | 0.528 | 160 | 0.207 | 196 | 0.217 | 232 | 0.467 | 268 | 0.923 | 304 | 0.978 | 340 | 0.905 |
| 17 | 0.904 | 53 | 0.970 | 89 | 0.945 | 125 | 0.512 | 161 | 0.209 | 197 | 0.214 | 233 | 0.482 | 269 | 0.931 | 305 | 0.975 | 341 | 0.905 |
| 18 | 0.904 | 54 | 0.973 | 90 | 0.940 | 126 | 0.497 | 162 | 0.212 | 198 | 0.212 | 234 | 0.497 | 270 | 0.940 | 306 | 0.973 | 342 | 0.904 |
| 19 | 0.905 | 55 | 0.975 | 91 | 0.931 | 127 | 0.482 | 163 | 0.214 | 199 | 0.209 | 235 | 0.512 | 271 | 0.945 | 307 | 0.970 | 343 | 0.904 |
| 20 | 0.905 | 56 | 0.978 | 92 | 0.923 | 128 | 0.467 | 164 | 0.217 | 200 | 0.207 | 236 | 0.528 | 272 | 0.949 | 308 | 0.968 | 344 | 0.903 |
| 21 | 0.906 | 57 | 0.980 | 93 | 0.914 | 129 | 0.452 | 165 | 0.220 | 201 | 0.208 | 237 | 0.543 | 273 | 0.954 | 309 | 0.965 | 345 | 0.902 |
| 22 | 0.907 | 58 | 0.983 | 94 | 0.906 | 130 | 0.437 | 166 | 0.222 | 202 | 0.209 | 238 | 0.558 | 274 | 0.959 | 310 | 0.963 | 346 | 0.902 |
| 23 | 0.909 | 59 | 0.985 | 95 | 0.897 | 131 | 0.424 | 167 | 0.225 | 203 | 0.210 | 239 | 0.573 | 275 | 0.964 | 311 | 0.960 | 347 | 0.901 |
| 24 | 0.910 | 60 | 0.988 | 96 | 0.888 | 132 | 0.410 | 168 | 0.227 | 204 | 0.211 | 240 | 0.588 | 276 | 0.968 | 312 | 0.958 | 348 | 0.901 |
| 25 | 0.911 | 61 | 0.989 | 97 | 0.880 | 133 | 0.396 | 169 | 0.229 | 205 | 0.213 | 241 | 0.603 | 277 | 0.973 | 313 | 0.955 | 349 | 0.900 |
| 26 | 0.912 | 62 | 0.990 | 98 | 0.871 | 134 | 0.383 | 170 | 0.232 | 206 | 0.214 | 242 | 0.617 | 278 | 0.978 | 314 | 0.952 | 350 | 0.900 |
| 27 | 0.913 | 63 | 0.992 | 99 | 0.863 | 135 | 0.370 | 171 | 0.233 | 207 | 0.215 | 243 | 0.632 | 279 | 0.982 | 315 | 0.950 | 351 | 0.900 |
| 28 | 0.915 | 64 | 0.993 | 100 | 0.854 | 136 | 0.356 | 172 | 0.235 | 208 | 0.216 | 244 | 0.646 | 280 | 0.987 | 316 | 0.947 | 352 | 0.900 |
| 29 | 0.916 | 65 | 0.994 | 101 | 0.842 | 137 | 0.343 | 173 | 0.236 | 209 | 0.217 | 245 | 0.660 | 281 | 0.988 | 317 | 0.944 | 353 | 0.900 |
| 30 | 0.917 | 66 | 0.995 | 102 | 0.830 | 138 | 0.329 | 174 | 0.237 | 210 | 0.218 | 246 | 0.675 | 282 | 0.990 | 318 | 0.941 | 354 | 0.900 |
| 31 | 0.919 | 67 | 0.996 | 103 | 0.818 | 139 | 0.315 | 175 | 0.238 | 211 | 0.226 | 247 | 0.689 | 283 | 0.991 | 319 | 0.939 | 355 | 0.900 |
| 32 | 0.921 | 68 | 0.998 | 104 | 0.806 | 140 | 0.302 | 176 | 0.240 | 212 | 0.235 | 248 | 0.704 | 284 | 0.992 | 320 | 0.936 | 356 | 0.899 |
| 33 | 0.923 | 69 | 0.999 | 105 | 0.794 | 141 | 0.294 | 177 | 0.241 | 213 | 0.243 | 249 | 0.719 | 285 | 0.993 | 321 | 0.934 | 357 | 0.899 |
| 34 | 0.925 | 70 | 1.000 | 106 | 0.781 | 142 | 0.285 | 178 | 0.242 | 214 | 0.252 | 250 | 0.733 | 286 | 0.995 | 322 | 0.932 | 358 | 0.899 |
| 35 | 0.927 | 71 | 0.999 | 107 | 0.769 | 143 | 0.277 | 179 | 0.244 | 215 | 0.260 | 251 | 0.745 | 287 | 0.996 | 323 | 0.930 | 359 | 0.899 |

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided. No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

Trusted for Decades. Ready for Tomorrow.

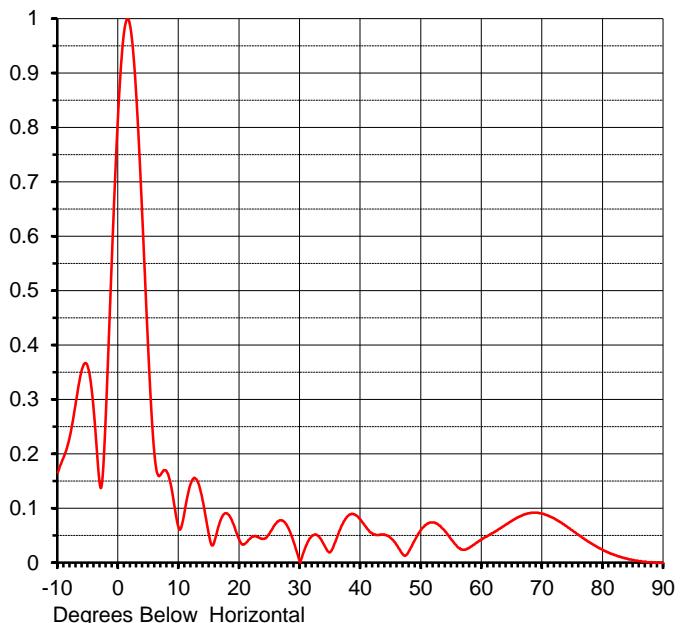
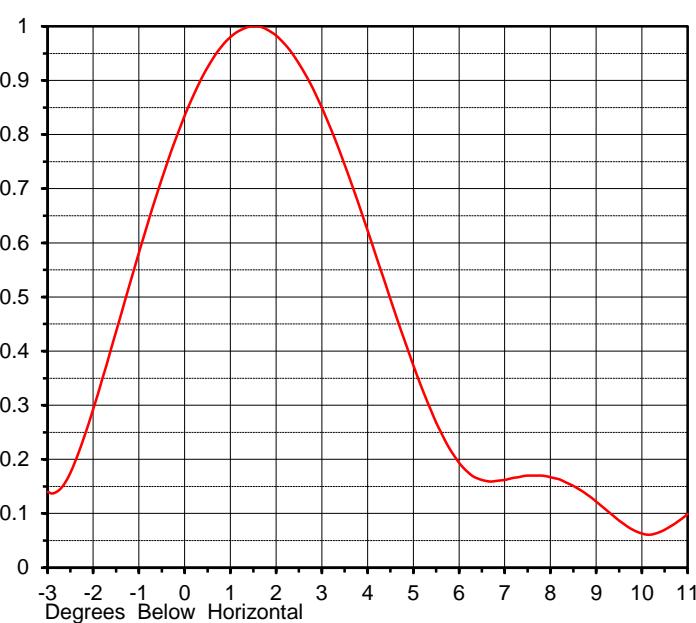
ELEVATION PATTERN

Proposal No. C-71133-1
 Date 14-May-18
 Call Letters KGPX
 Channel 34
 Frequency 593 MHz
 Antenna Type TLP-12W/VP-R

RMS Directivity at Main Lobe
 RMS Directivity at Horizontal

11.8 (10.72 dB)
8.2 (9.14 dB)
 Calculated

Beam Tilt 1.50 deg
 Pattern Number 12L118150



| Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.166 | 10.0 | 0.063 | 30.0 | 0.000 | 50.0 | 0.061 | 70.0 | 0.090 |
| -9.0 | 0.195 | 11.0 | 0.099 | 31.0 | 0.032 | 51.0 | 0.072 | 71.0 | 0.086 |
| -8.0 | 0.233 | 12.0 | 0.147 | 32.0 | 0.050 | 52.0 | 0.074 | 72.0 | 0.081 |
| -7.0 | 0.297 | 13.0 | 0.151 | 33.0 | 0.049 | 53.0 | 0.068 | 73.0 | 0.074 |
| -6.0 | 0.356 | 14.0 | 0.110 | 34.0 | 0.032 | 54.0 | 0.057 | 74.0 | 0.067 |
| -5.0 | 0.358 | 15.0 | 0.048 | 35.0 | 0.020 | 55.0 | 0.042 | 75.0 | 0.059 |
| -4.0 | 0.271 | 16.0 | 0.045 | 36.0 | 0.044 | 56.0 | 0.029 | 76.0 | 0.051 |
| -3.0 | 0.140 | 17.0 | 0.082 | 37.0 | 0.071 | 57.0 | 0.024 | 77.0 | 0.043 |
| -2.0 | 0.293 | 18.0 | 0.090 | 38.0 | 0.087 | 58.0 | 0.028 | 78.0 | 0.036 |
| -1.0 | 0.582 | 19.0 | 0.071 | 39.0 | 0.089 | 59.0 | 0.036 | 79.0 | 0.029 |
| 0.0 | 0.835 | 20.0 | 0.041 | 40.0 | 0.079 | 60.0 | 0.043 | 80.0 | 0.023 |
| 1.0 | 0.980 | 21.0 | 0.036 | 41.0 | 0.064 | 61.0 | 0.050 | 81.0 | 0.018 |
| 2.0 | 0.983 | 22.0 | 0.047 | 42.0 | 0.053 | 62.0 | 0.056 | 82.0 | 0.014 |
| 3.0 | 0.850 | 23.0 | 0.047 | 43.0 | 0.051 | 63.0 | 0.063 | 83.0 | 0.010 |
| 4.0 | 0.623 | 24.0 | 0.044 | 44.0 | 0.051 | 64.0 | 0.070 | 84.0 | 0.007 |
| 5.0 | 0.374 | 25.0 | 0.055 | 45.0 | 0.045 | 65.0 | 0.077 | 85.0 | 0.005 |
| 6.0 | 0.194 | 26.0 | 0.072 | 46.0 | 0.032 | 66.0 | 0.084 | 86.0 | 0.003 |
| 7.0 | 0.162 | 27.0 | 0.078 | 47.0 | 0.015 | 67.0 | 0.089 | 87.0 | 0.002 |
| 8.0 | 0.167 | 28.0 | 0.065 | 48.0 | 0.022 | 68.0 | 0.091 | 88.0 | 0.001 |
| 9.0 | 0.122 | 29.0 | 0.036 | 49.0 | 0.043 | 69.0 | 0.092 | 89.0 | 0.000 |
| | | | | | | 90.0 | 0.000 | | |

This document contains proprietary and confidential information of Dielectric. It is to be used solely for the purpose for which it is provided.
 No disclosure, reproduction, or use of this document or any part of it may be made without the written permission of Dielectric.

KGPX-Application
Latitude: 47-35-35 N
Longitude: 117-17-50 W
ERP: 60.00 kW
Channel: 34
Frequency: 593.0 MHz
AMSL Height: 1171.58 m
Elevation: 1103.0 m
Horiz. Pattern: Directional
Vert. Pattern: Yes
Elec Tilt: 1.5
Prop Model: None

