

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION FOR
SPECIAL TEMPORARY AUTHORIZATION
KTRG-DT, DEL RIO, TEXAS
CHANNEL 28 11.14 KW 99 METERS
AUGUST 2008

This engineering statement has been prepared on behalf of SATV 10, LLC licensee of TV station KTRG(TV), Del Rio, Texas in support of its application for a special temporary authorization (STA) for digital television operation on Channel 28.

At present KTRG(TV), Facility ID Number 55762, is authorized to operate on analog TV Channel 10 (192-198 MHz) with 316 kW effective radiated power (ERP) and 100 meters antenna height above average terrain (HAAT) using a directional TV antenna. In the Seventh Report and Order (MB Docket No. 87-268) the Commission has allotted Channel 28 for the KTRG(TV)'s DTV operation with 1000 kW ERP, 100 meters HAAT and a non-directional antenna. KTRG-DT also holds a construction permit (CP) (BPCDT-19991101AEN) to operate on DTV Channel 28 with 1000 kW ERP and 100 meters HAAT from its licensed analog TV site.

KTRG(TV) faces a unique technical challenge for constructing its CP facilities. KTRG(TV) has been advised that since the DTV antenna needs to be installed at the current analog TV location, implementation of the CP facilities is not feasible without turning off the current analog TV operation. Therefore, an STA is requested to continue operating on DTV Channel 28 with 11.14 kW ERP and 99 meters HAAT using a non-directional TV antenna after the DTV transition.

The following information provides pertinent data for the proposed KTRG-DT STA operation.

| | |
|-----------------------|--------------|
| Name of the Licensee: | SATV 10, LLC |
| Station Location: | TX-Del Rio |

| | | | | |
|--|---------------------------------------|---------|--------|--------|
| Channel: | 28 | | | |
| Hours of Operation: | Unlimited | | | |
| Transmitter: | Type Accepted | | | |
| Antenna Type: | NIC, Model BKU4-5 | | | |
| Beam Tilt: | 0 deg | | | |
| Antenna Coordinates: | North Latitude: | 29 deg | 20 min | 39 sec |
| | West Longitude: | 100 deg | 51 min | 39 sec |
| Transmitter output power: | As required to achieve authorized ERP | | | |
| Maximum effective radiated power (Average): | 11.14 kW 10.47 dBk | | | |
| Antenna Location Site Elevation Above Mean Sea Level: | 321.8 meters | | | |
| Overall Tower Height Above Ground level: | 92 meters | | | |
| Height of radiation center above ground (meters): | 90 meters | | | |
| Height of radiation center above mean sea level (meters): | 411.8 meters | | | |
| Height of radiation center above average terrain (meters): | 99 meters | | | |
| Antenna Structure Registration Number: | 1036769 | | | |

The attached maps (Figure 1) shows the computed Grade B (56 dBu) contour of KTRG(TV) on Channel 10 and the noise limited (41 dBu) contour of the Channel 28 DTV facilities as defined in Appendix B. The population (2000 census) served before the transition by the analog TV and Appendix B DTV operation is 54,643 people. Figure 2 shows the noise limited contour for the proposed STA operation on DTV Channel 28 in addition to the analog TV Grade B and Appendix B noise limited contours. The population served after the transition would be 48,032 people. As such, the STA

operation of KTRG-DT would be serving 87.9% (48,032/54,643) of the pre-transition population.

An interference study conducted (see attached Table I) according to the FCC OET Bulletin 69 indicates the proposed KTRG-DT operation would not cause any interference to other DTV stations exceeding the Commission's guidelines of 0.5%.

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed DTV operation in accordance with 47 C.F.R. Section 73.1307.

The proposed KTRG-DT facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

The existing KTRG-DT tower is registered (ASR No. 1036769) by the Commission and no changes are proposed to require a change in the registration.

TABLE I

TW Census data selected 2000

Post Transition Data Base Selected /space/software/cdb/pt_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 08-18-2008 Time: 09:40:19

Record Selected for Analysis

KTRG USERRECORD-01 DEL RIO TX US
 Channel 28 ERP 11.14 kW HAAT 99. m RCAMSL 00412 m
 Latitude 029-20-39 Longitude 0100-51-39
 Status APP Zone 2 Border
 Last update Cutoff date Docket
 Comments
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

| Azimuth (Deg) | ERP (kW) | HAAT (m) | 41.0 dBu F(50,90) (km) |
|------------------|-------------|-------------|---------------------------|
| 0.0 | 11.140 | 73.2 | 48.7 |
| 45.0 | 11.140 | 69.2 | 48.0 |
| 90.0 | 11.140 | 94.0 | 51.7 |
| 135.0 | 11.140 | 117.8 | 54.1 |
| 180.0 | 11.140 | 120.7 | 54.4 |
| 225.0 | 11.140 | 106.1 | 53.1 |
| 270.0 | 11.140 | 118.0 | 54.2 |
| 315.0 | 11.140 | 93.2 | 51.6 |

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KTRG 28 DEL RIO TX USERRECORD01

and station

SHORT TO: KTRG 28 DEL RIO TX DTVPLN DTVP1059
 29 -20-39 100 -51-39
 Req. separation 223.7 Actual separation 0.0 Short 223.7 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is within the Mexican coordination distance
Distance to border = 4.2km

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

| Channel | Proposed Station Call | City/State | ARN |
|---------|--------------------------|------------|--------------|
| 28 | KTRG | DEL RIO TX | USERRECORD01 |

Stations Potentially Affected by Proposed Station

| Chan | Call | City/State | Dist(km) | Status | Application Ref. No. |
|------|---------|---------------|----------|--------|----------------------|
| 28 | KHPX-CA | GEORGETOWN TX | 338.4 | LIC | BLTTA -20020408AAP |

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Analysis of Interference to Affected Station 1

Analysis of current record

| Channel | Call | City/State | Application Ref. No. |
|---------|---------|---------------|----------------------|
| 28 | KHPX-CA | GEORGETOWN TX | BLTTA -20020408AAP |

Stations Potentially Affecting This Station

| Chan | Call | City/State | Dist(km) | Status | Application Ref. No. |
|------|---------|-------------------|----------|--------|----------------------|
| 20 | KWBU-TV | WACO TX | 85.5 | LIC | BLEDT -20060622AAS |
| 20 | KWBU-TV | WACO TX | 85.5 | PLN | DTVPLN -DTVP0743 |
| 21 | KXAN-TV | AUSTIN TX | 33.4 | LIC | BLCDT -20050630AAG |
| 21 | KXAN-TV | AUSTIN TX | 33.4 | PLN | DTVPLN -DTVP0785 |
| 26 | KXXV | WACO TX | 88.4 | LIC | BLCDT -20050630AFE |
| 26 | KXXV | WACO TX | 88.4 | PLN | DTVPLN -DTVP0981 |
| 27 | KXAM-TV | LLANO TX | 87.1 | CP | BPCDT -19991018AAV |
| 27 | KXAM-TV | LLANO TX | 87.1 | PLN | DTVPLN -DTVP1020 |
| 28 | KYLE | BRYAN TX | 118.3 | LIC | BLCT -19970219KG |
| 28 | KYLE | BRYAN TX | 118.3 | PLN | DTVPLN -DTVP1058 |
| 28 | KYLE | BRYAN TX | 118.3 | APP | BMPCDT -20080620AKH |
| 28 | KORO | CORPUS CHRISTI TX | 321.6 | LIC | BLCT -20021230ABP |
| 28 | KTRG | DEL RIO TX | 338.4 | PLN | DTVPLN -DTVP1059 |
| 28 | KHMV-CA | HOUSTON TX | 236.3 | APP | BSTA -20060227ACL |
| 28 | KHMV-CA | HOUSTON TX | 236.3 | LIC | BLTTA -20061214ABD |
| 28 | KFDX-TV | WICHITA FALLS TX | 375.2 | CP MOD | BMPCDT -20070621ABP |
| 28 | KFDX-TV | WICHITA FALLS TX | 375.2 | PLN | DTVPLN -DTVP1060 |
| 42 | KEYE-TV | AUSTIN TX | 34.0 | LIC | BLCT -20031014ACM |
| 43 | KEYE-TV | AUSTIN TX | 34.0 | LIC | BLCDT -20031001BGN |
| 43 | KEYE-TV | AUSTIN TX | 34.0 | PLN | DTVPLN -DTVP1556 |
| 28 | KTRG | DEL RIO TX | 338.4 | APP | USERRECORD-01 |

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Analysis of current record

KHANNA & GUILL, Inc. – Consulting Engineers

| | | | |
|---------|------|------------|----------------------|
| Channel | Call | City/State | Application Ref. No. |
| 28 | KTRG | DEL RIO TX | USERRECORD-01 |

Stations Potentially Affecting This Station

| | | | | | |
|------|------|------------|----------|--------|----------------------|
| Chan | Call | City/State | Dist(km) | Status | Application Ref. No. |
|------|------|------------|----------|--------|----------------------|

Total scenarios = 1

Result key: 1
 Scenario 1 Affected station 2
 Before Analysis

Results for: 28A TX DEL RIO USERRECORD01 APP

| | | |
|--------------------------------|------------|--------------|
| HAAT 99.0 m, ATV ERP 11.1 kW | | |
| | POPULATION | AREA (sq km) |
| within Noise Limited Contour | 48715 | 8835.3 |
| not affected by terrain losses | 48711 | 8815.3 |
| lost to NTSC IX | 0 | 0.0 |
| lost to additional IX by ATV | 0 | 0.0 |
| lost to ATV IX only | 0 | 0.0 |
| lost to all IX | 0 | 0.0 |

Potential Interfering Stations Included in above Scenario 1

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

ENVIRONMENTAL PROTECTION ACT

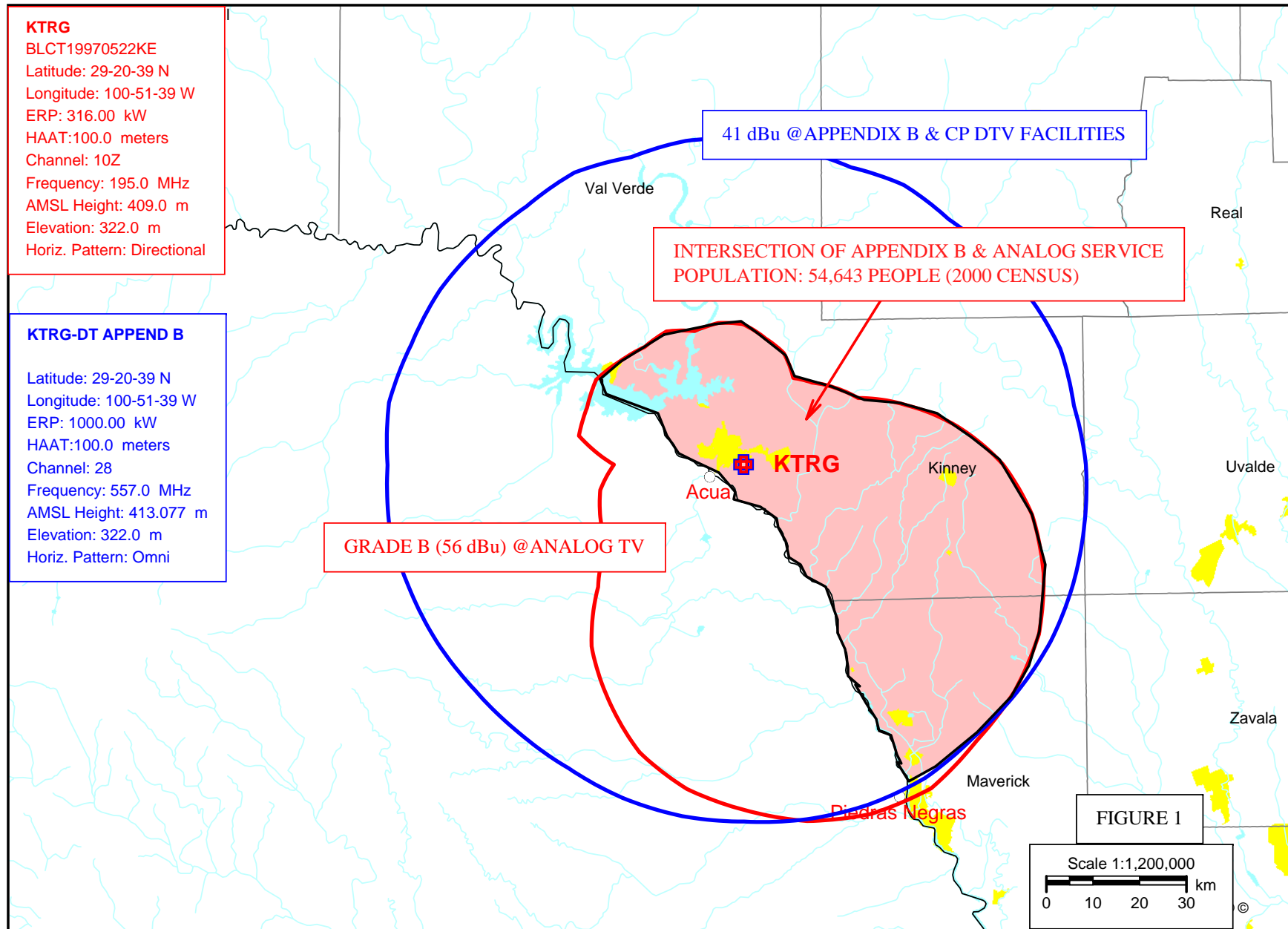
Since KTRG-DT will be using its currently licensed tower (ASR No. 1036769) for the DTV operation the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 11.14 kW and a radiation center of 90 meters above ground level, the proposed Channel 28 DTV operation would have less than 2 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.2 in the downward direction.

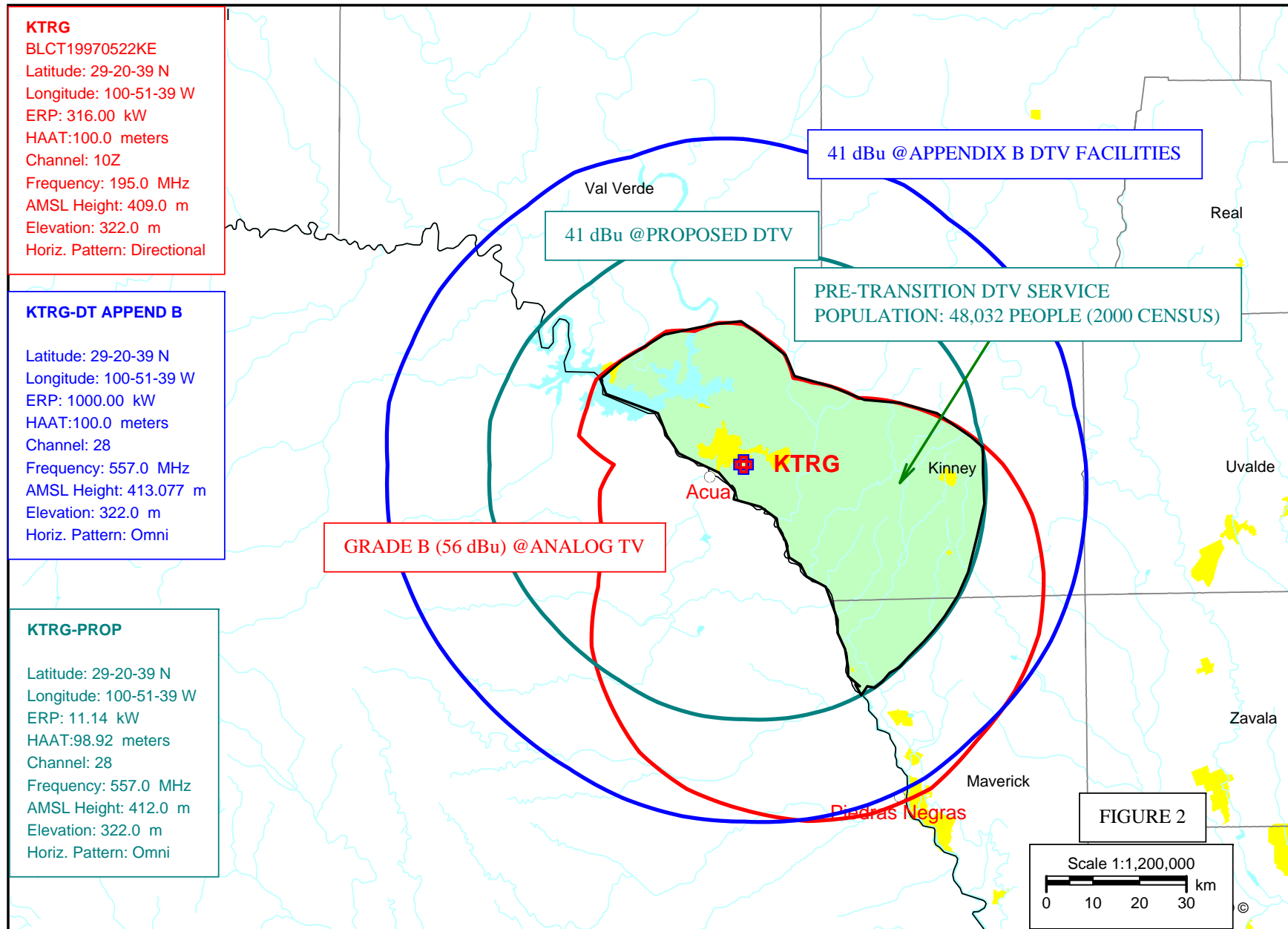
The Commission's guidelines for the Channel 28 TV are $1847 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $369 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the KTRG-DT tower would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, KTRG-DT will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.



COMPUTED CONTOURS FOR THE ANALOG TV AND APPENDIX B DTV OPERATIONS OF KTRG, DEL RIO, TEXAS



COMPUTED CONTOURS FOR THE ANALOG TV, APPENDIX B AND PROPOSED DTV OPERATIONS OF KTRG, DEL RIO, TEXAS