ENGINEERING STATEMENT
IN SUPPORT OF AMENDMENT OF APPLICATION
(BPCDT-20111209DNR)
FOR THE PROPOSED DTS TV OPERATION OF
KMCC, LAUGHLIN, NEVADA

APRIL 2013

This engineering statement has been prepared on behalf of Cranston Acquisition, LLC, licensee of TV station KMCC, Laughlin, Nevada, in support of an amendment of its application (BPCDT-20111209DNR) for DTS Site Number 2.

At present KMCC (Facility ID Number 41237) operates on Channel 32 (578-584 MHz) with 1000 kW effective radiated power (ERP), 607 meters antenna height above terrain. KMCC has filed an application (BPCDT-20111209DNR) to operate a two-site DTS operation. It is proposed to correct geographic coordinates and specify a different directional antenna system for the DTS Site Number 2. No changes in the proposed main DTS operation of KMCC (DTS Site Number 1) are requested.

The following information provides pertinent data for the proposed KMCC DTS Site Number 2 operation.

Name of the Licensee:	Cranston Acquisition, LLC			
Station Location:	NV-Laughlin			
Channel:	32			
Hours of Operation:	Unlimited			
Transmitter:	Type Accepted			
Antenna Type:	PSI, Model PSI-SL, Directional			
Antenna Coordinates:	North Latitude:	35 deg	56 min	45 sec
	West Longitude:	115 deg	02 min	35 sec
Transmitter output power:	As required to achieve authorized ERP			
Maximum effective radiated power (Average):	5 kW 6.99 dBk			

Elevation of the site above mean sea level:	1321.3 meters
Overall height of the tower above ground:	77.4 meters
Height of radiation center above ground:	10.1 meters
Height of radiation center above mean sea level:	1331.4 meters
Height of radiation center above average terrain:	547 meters
Antenna Structure Registration Number:	1011437

The attached map (Figure 1) shows the computed 41 dBu contours for DTS Sites Number 1 and 2. Figure 1 indicates the computed 41 dBu contour for site Number 2 would be wholly inside the 41 dBu contour of Site Number 1. An interference study conducted (see attached Table I) indicates the proposed KMCC DTS amended Site Number 2, in conjunction with Site Number 1 operation, would not cause to any other TV or LPTV stations exceeding the Commission's guidelines.

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

The attached map (Figure 1) shows the proposed 41 dBu contour of the amended DTS Site Number 2 would be wholly inside the main KMCC DTS Operation (DTS Site Number 1).

The proposed KMCC DTS Site Number 1 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 proposed KMCC DTS Site Number 1 would be operating from an existing tower which is registered (ASR No. 1011437) by the Commission and no changes are proposed to require a modification in the registration.

ENVIRONMENTAL PROTECTION ACT

Since KMCC Site 2 will be using a licensed tower (ASR No. 1011437), for the DTS 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 5 kW and a radiation center of 10.1 meters above ground level, the proposed Channel 32 DTS operation would have a maximum of 25.4 microwatts per square centimeter ($\mu W/cm^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.1 in the downward direction.

The Commission's guidelines for TV Channel 32 are 1,927 $\mu W/cm^2$ for the occupational/controlled, and 385 $\mu W/cm^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the KMCC site number 2 tower would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, KMCC has established 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.

TABLE I

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Percent allowed new interference:   0.500
Percent allowed new interference to non Class A LPTV:   2.000
 TW Census data selected 2000
 Data Base Selected
 /space/software/cdbs/pt_tvdb.sff
              TV INTERFERENCE and SPACING ANALYSIS PROGRAM


 Date: 03-28-2013    Time: 09:17:24

 Record Selected for Analysis (Record is a DTS)

 KMCC     BDTS      -30000101DTS      LAUGHLIN             NV US
 Channel 32 ERP 1000   kW   HAAT 607.0 m  RCAMSL 1648. m
 Latitude 35 -39-07  Longitude 114 -18-42
 Status APP       Zone 2    Border      Site number: 01
 Dir Antenna Make usr  Model KMCC-DA         Beam tilt N  Ref Azimuth 0.0
 Last update           Cutoff date 40000101  Docket
 Comments
 Applicant



 KMCC     BDTS      -30000101DTS      LAUGHLIN             NV US
 Channel 32 ERP 5      kW   HAAT 548   m  RCAMSL 1331. m
 Latitude 35 -56-45  Longitude 115 -02-35
 Status APP       Zone 2    Border      Site number: 02
 Dir Antenna Make usr  Model KMCCB-DA        Beam tilt N  Ref Azimuth 40.0
 Last update           Cutoff date 40000101  Docket
 Comments
 Applicant



 Cell Size for Service Analysis 2.0 km/side

 Distance Increments for Longley-Rice Analysis 1.00 km


 Facility (site # 01) does not meet maximum height/power limits
 Channel 32  ERP = 1000.00  HAAT =  607.


 Facility (site # 02) meets maximum height/power limits

    Site number  1
    Azimuth     ERP        HAAT   41.0 dBu F(50,90)
     (Deg)      (kW)       (m)        (km)
      0.0      861.184     469.1      110.701
     45.0      545.382     441.6      103.753
     90.0      101.761     597.1      100.077
    135.0      216.225     343.5       88.452
    180.0      136.161     707.6      107.067
    225.0      651.417     768.0      124.462
    270.0      888.317     815.3      129.422
    315.0      996.004     710.2      126.396
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Site number 2

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	1.439	682.3	69.194
45.0	4.802	620.2	76.077
90.0	0.798	614.1	63.626
135.0	0.005	714.3	33.702
180.0	0.004	311.5	24.390
225.0	0.050	321.1	37.771
270.0	0.007	501.0	32.035
315.0	0.007	619.4	34.122

Evaluation toward Class A Stations from site # 01

No Spacing violations or contour overlap
to Class A stations from site # 01

Evaluation toward Class A Stations from site # 02

No Spacing violations or contour overlap
to Class A stations from site # 02

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

KMCC 32 LAUGHLIN NV BDTS 30000101DTS Site # 01

and station

SHORT TO: KMCC 32 LAUGHLIN NV DTVPLN DTVP1183
35 -39-07 114 -18-42
Req. separation 223.7 Actual separation 0.0 Short 223.7 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 01

SPACING VIOLATION FOUND BETWEEN STATION

KMCC 32 LAUGHLIN NV BDTS 30000101DTS Site # 02

and station

SHORT TO: KMCC 32 LAUGHLIN NV DTVPLN DTVP1183
35 -39-07 114 -18-42
Req. separation 223.7 Actual separation 73.6 Short 150.1 km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE from Site # 02

Checks to Site Number 01

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 beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

Checks to Site Number 02

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 beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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Start of Interference Analysis

Proposed Station

Channel	Call	City/State	ARN	
32	KMCC	LAUGHLIN NV	BDTS	30000101DTS

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
25	K25AL	LAKE HAVASU CITY AZ	129.0	LIC	BLTTL	19850927IA
32	KDOC-TV	ANAHEIM CA	377.0	LIC	BLCDT	20060626ACV
32	KDOC-TV	ANAHEIM CA	377.0	CP MOD	BMPCDT	20040323ATA
36	K36DU	LAKE HAVASU CITY, ET AZ	116.7	LIC	BLTTL	19960308IA

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Analysis of Interference to Affected Station 1

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
25	K25AL	LAKE HAVASU CITY AZ	BLTTL	-19850927IA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
25	K25HD-D	BULLHEAD CITY AZ	92.1	LIC	BLDTA	-20111128FZD
25	NEW	KINGMAN AZ	81.8	APP	BMJADTL	-20100524AGW
25	K25DH	MEADVIEW AZ	154.0	CP MOD	BMPDTT	-20111025AEV
25	K25DH	MEADVIEW AZ	154.0	LIC	BLTT	-19891221IB
25	KPDC-LP	INDIO CA	205.6	LIC	BLTTL	-20030610ADC
25	K25GK	JOSHUA TREE CA	156.3	LIC	BLTT	-20000605AOK
32	KMCC	LAUGHLIN NV	129.0	PLN	DTVPLN	-DTVP1183
32	KMCC	LAUGHLIN NV	129.0	APP	BDTS	-30000101DTS
32	KMCC	LAUGHLIN NV		APP	BDTS	-30000101DTS

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	KDOC-TV	ANAHEIM CA	BLCDT	-20060626ACV

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	KTLA	LOS ANGELES CA	0.1	LIC	BLCDT	-20050713ACE
32	KION-TV	MONTEREY CA	411.8	LIC	BLCDT	-20030604ACO
32	KMCC	LAUGHLIN NV	377.0	PLN	DTVPLN	-DTVP1183
33	KBAK-TV	BAKERSFIELD CA	144.5	LIC	BLCDT	-20060628ABK
33	KTBN-DR	SANTA ANA CA	0.4	APP	BPRM	-20081031ACN
33	KTBN-TV	SANTA ANA CA	0.4	LIC	BLCDT	-20091019ABG
32	KMCC	LAUGHLIN NV	377.0	APP	BDTS	-30000101DTS
32	KMCC	LAUGHLIN NV	334.9	APP	BDTS	-30000101DTS

Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
32	KDOC-TV	ANAHEIM CA	BMPCDT	-20040323ATA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
31	KTLA	LOS ANGELES CA	0.1	LIC	BLCDT	-20050713ACE
32	KION-TV	MONTEREY CA	411.8	LIC	BLCDT	-20030604ACO
32	KMCC	LAUGHLIN NV	377.0	PLN	DTVPLN	-DTVP1183
33	KBAK-TV	BAKERSFIELD CA	144.5	LIC	BLCDT	-20060628ABK
33	KTBN-DR	SANTA ANA CA	0.4	APP	BPRM	-20081031ACN
33	KTBN-TV	SANTA ANA CA	0.4	LIC	BLCDT	-20091019ABG
32	KMCC	LAUGHLIN NV	377.0	APP	BDTS	-30000101DTS
32	KMCC	LAUGHLIN NV	334.9	APP	BDTS	-30000101DTS

Proposal causes no interference

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
36	K36DU	LAKE HAVASU CITY, ET AZ	BLTTL	-19960308IA

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	KMCC	LAUGHLIN NV	116.7	PLN	DTVPLN	-DTVP1183
36	K36AE	CLARKDALE AZ	206.3	CP	BDFCDTT	-20090804ACO
36	K36AE	CLARKDALE, ETC. AZ	206.3	LIC	BLTT	-19821103IK
36	KKAX-LP	HILLTOP AZ	68.1	LIC	BLTTL	-20030722AAR
36	KKAX-LP	HILLTOP AZ	68.1	APP	BDFCDTL	-20110907AMG
36	K36FZ	MEADVIEW AZ	142.3	LIC	BLTT	-20040521AAO
36	KAJB	CALIPATRIA CA	177.6	LIC	BLCDT	-20090320AAI
36	KNBC	LOS ANGELES CA	387.8	APP	BMPCDT	-20100811ABJ
36	KNBC	LOS ANGELES CA	341.3	APP	BMPCDT	-20100811ABJ
36	KNBC	LOS ANGELES CA	387.8	APP	BMPCDT	-20100811ABJ
36	KNBC	LOS ANGELES CA	302.7	APP	BMPCDT	-20100811ABJ
36	KNBC	LOS ANGELES CA	341.3	LIC	BLCDT	-20070820ACK
36	KEGS-LD	LAS VEGAS NV	161.3	APP	BDISDTL	-20120201AMF
32	KMCC	LAUGHLIN NV	116.7	APP	BDTS	-30000101DTS
32	KMCC	LAUGHLIN NV		APP	BDTS	-30000101DTS

Proposed station is beyond the site to
nearest cell evaluation distance

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Analysis of Interference to Affected Station 5

Analysis of current record
DTS STATION

Channel	Call	City/State	Application	Ref. No.
32	KMCC	LAUGHLIN NV	BDTS	-30000101DTS

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
32	KDOC-TV	ANAHEIM CA	334.9	LIC	BLCDT	-20060626ACV
32	KDOC-TV	ANAHEIM CA	334.9	CP MOD	BMPCDT	-20040323ATA

Total scenarios = 1

Result key: 1
Scenario 1 Affected station 5
Before Analysis

Results for: 32A NV LAUGHLIN BDTS 30000101DTS APP
HAAT 607.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	1469911	40728.5
not affected by terrain losses	1427904	31961.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0

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   lost to all IX                          0          0.0

 Potential Interfering Stations Included in above Scenario     1

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