

ENGINEERING EXHIBIT

Application for Construction Permit

prepared for

BOARD OF TRUSTEES, CALIFORNIA STATE UNIVERSITY FOR SAN DIEGO STATE UNIVERSITY

KPBS-FM San Diego, California

Facility ID 58823

Ch. 208B 26 kW 209 m

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FCC Form 340, Section VII-FM Engineering

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This material supplies a "hard copy" of the engineering portions of this application as entered March 23, 2007 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.

Section VII Preparer's Certification

I certify that I have prepared Section VII (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 JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 03/23/2007	
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) JDAVIS@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 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Section VII - 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.

TECH BOX

1.	Channel Number: 208											
2.	Class (select one): <input type="radio"/> D <input type="radio"/> A <input type="radio"/> B1 <input checked="" type="radio"/> B <input type="radio"/> C3 <input type="radio"/> C2 <input type="radio"/> C1 <input type="radio"/> C0 <input type="radio"/> C											
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 32 Minutes 50 Seconds 17 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 117 Minutes 14 Seconds 57 <input checked="" type="radio"/> West <input type="radio"/> East											
4.	Proposed Assignment Coordinates: (NAD 27) - RESERVED CHANNELS ABOVE 220 ONLY <input checked="" type="checkbox"/> Not Applicable Latitude: Degrees Minutes Seconds <input type="radio"/> North <input type="radio"/> South Longitude: Degrees Minutes Seconds <input type="radio"/> West <input type="radio"/> East											
5.	Antenna Structure Registration Number: 1014527 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA											
6.	Overall Tower Height Above Ground Level: 86.9 meters											
7.	Height of Radiation Center Above Mean Sea Level: 271.4 meters(H) 271.4 meters(V)											
8.	Height of Radiation Center Above Ground Level: 38.1 meters(H) 38.1 meters(V)											
9.	Height of Radiation Center Above Average Terrain: 208.5 meters(H) 208.5 meters(V)											
10.	Effective Radiated Power: 26 kW(H) 26 kW(V)											
11.	Maximum Effective Radiated Power: <input checked="" type="checkbox"/> Not Applicable kW(H) kW(V) (Beam-Tilt Antenna ONLY)											
12.	Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> Not applicable (Nondirectional) Rotation (Degrees): <input type="checkbox"/> No Rotation											
	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
	0		10		20		30		40		50	
	60		70		80		90		100		110	
	120		130		140		150		160		170	
	180		190		200		210		220		230	

240	250	260	270	280	290
300	310	320	330	340	350
Additional Azimuths					

[Relative Field Polar Plot](#)

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 12-15.

13. **Main Studio Location.** The proposed main studio location complies with 47 C.F.R. Section 73.1125. ☒ Yes ☐ No
See Explanation in [Exhibit 13]
14. **Community Coverage.** The proposed facility complies with 47 C.F.R. Section 73.315. (Channels 221 and above) or 47 C.F.R. Section 73.515 (Channels 220 and below). ☒ Yes ☐ No
See Explanation in [Exhibit 14]
15. **Interference.** The proposed facility complies with all of the following applicable rule sections. Check all that apply: ☒ Yes ☐ No
See Explanation in [Exhibit 15]
- Contour Overlap Requirements.**
a. ☒ 47 C.F.R. Section 73.509
Exhibit Required. [Exhibit 16]
- Spacing Requirements.**
b. ☒ 47 C.F.R. Section 73.207 with respect to station(s)
- Grandfathered Short-Spaced.**
c. ☐ 47 C.F.R. Section 73.213(a) with respect to station(s)
Exhibit Required. [Exhibit 17]
- Contour Protection.**
d. ☐ 47 C.F.R. Section 73.215(a) with respect to station(s)
Exhibit Required. [Exhibit 18]
- Television Channel 6 Protection.**
e. ☒ 47 C.F.R. Section 73.525 with respect to station(s)
Exhibit Required. [Exhibit 19]
16. **Reserved Channels Above 220.**
a. **Availability of Channels.** The proposed facility complies with the assignment requirements of 47 C.F.R. Section 73.203. ☐ Yes ☐ No
See Explanation in [Exhibit 20]
17. **International Borders.** The proposed antenna location is not within 320 kilometers of the common border between the United States and Canada or Mexico. ☐ Yes ☒ No
☐ Canada
☒ Mexico
If "No," specify the country and provide an exhibit of compliance with all provisions of the relevant International Agreement. [Exhibit 21]
18. **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 Worksheet #7, an **Exhibit is required.** ☒ Yes ☐ No
See Explanation in [Exhibit 22]

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.
19. **Community of License Change - Section 307(b).** If the application is being submitted to change the facility's community of license, then the applicant certifies that it has attached an exhibit containing information demonstrating that the proposed community of license change comports with the fair distribution of service policies underlying Section 307(b) of the Communications Act of 1934, as amended (47 U.S.C. Section 307(b)). ☐ Yes ☐ No
☒ N/A
[Exhibit 23]

An exhibit is required unless this question is not applicable.

PREPARER'S CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

Exhibits**Exhibit 15****Description:** EXHIBIT 15 - STATEMENT A

EXHIBIT 15 - STATEMENT A - ATTACHED AS A PDF FILE

Attachment 15

Description
Exhibit 15 - Statement A

Exhibit 16**Description:** SEE EXHIBIT 15**Attachment 16****Exhibit 19****Description:** SEE EXHIBIT 15**Attachment 19****Exhibit 22****Description:** EXHIBIT 22 - STATEMENT B

EXHIBIT 22 - STATEMENT B - ATTACHED AS A PDF FILE

Attachment 22

Description
Exhibit 22 - Statement B

Exhibit 22 - Statement B
ENVIRONMENTAL CONSIDERATIONS
prepared for
BOARD OF TRUSTEES, CALIFORNIA STATE UNIVERSITY
FOR SAN DIEGO STATE UNIVERSITY
KPBS-FM San Diego, California
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Introduction

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.

Board of Trustees, California State University for San Diego State University ("SDSU") proposes herein to relocate the KPBS-FM facility (Ch. 208B, San Diego, CA). *SDSU* proposes herein to employ an existing non-directional common transmitting antenna presently licensed for use by several other FM stations.¹ The proposal involves an existing antenna supporting structure and no change in structure overall height is proposed. The existing antenna structure is on Soledad Mountain, a developed multi-user communications site.

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 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 Electromagnetic Field

SDSU will participate in an radiofrequency ("RF") electromagnetic field exposure safety program, along with other broadcasters and FCC licensees that utilize the Soledad Mountain antenna site area. Following construction of the proposed facility, *SDSU* will commission RF exposure

¹This antenna is licensed for use by KBZT(FM) (Ch. 235B), KYXY(FM) (Ch. 243B, KIFM(FM) (Ch. 251B), and KFMB-FM (Ch. 264B), all San Diego, CA.

Exhibit 22 - Statement B
ENVIRONMENTAL CONSIDERATIONS
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measurements (and/or detailed calculations) to evaluate the level of RF exposure resulting from the KPBS-FM facility. As necessary, based on these results and considering all emitters, appropriate exposure abatement procedures will be established and followed, in order to comply with the Commission's exposure limits. Such abatement procedures may involve the restriction of access to certain areas and/or facility modifications to reduce RF levels.

Considering the post-construction measurement and an appropriate abatement program, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Site access will continue to be restricted and controlled through the use of locked gates, and RF exposure warning signs will continue to be posted.

With respect to worker safety, authorized personnel will be trained and/or supervised as necessary for access to any "controlled" areas. A site exposure policy will be employed protecting 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-tower RF exposure measurements may also be undertaken to establish the bounds of safe working areas. *SDSU* 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.