

Federal Communications Commission

FM BROADCAST STATION CONSTRUCTION PERMIT

Permittee

Advanced Public Radio,
Inc.
1500 Cotner Avenue
Los Angeles, CA, 90025

Call Sign	Facility ID
KKOI	767598

File Number 0000221550	This Permit Modifies License File No. 0000167001	
Filing Date 09/28/2023	Grant Date 10/19/2023	Expiration Date 02/11/2025

Community of License City: KAHULUI State: HI	Frequency (MHz) 88.3	Station Channel 202	Station Class C3
Hours of Operation: Unlimited			
Facility Type: Noncommercial Educational			

Transmitter Certified for Compliance. See Sections 73.1660, 73.1665 and 73.1670 of the Commission's Rules.	Transmitter Output Power As required to achieve authorized ERP.
Antenna Type Directional	Antenna Coordinates (NAD 83) Latitude 20-42-7.5 N Longitude 156-21-43.9 W
Major Lobe Directions Not Applicable	

	Horizontally Polarized Antenna	Vertically Polarized Antenna
Effective Radiated Power in the Horizontal Plane (kW)	5.2	3.5

Height of Radiation Center Above Ground (meters)	19	19
Height of Radiation Center Above Mean Sea Level (meters)	867	867
Height of Radiation Center Above Average Terrain (meters)	133	133

Antenna Structure Registration Number Not Required	Overall Height of Antenna Structure Above Ground (meters) 45.7
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Obstruction Marking and Lighting Specifications for Antenna Structure

It is expressly understood that the issuance of these specifications is in no way to be considered as precluding additional or modified marking or lighting as may hereafter be required under the provisions of Section 303 (q) of the Communications Act of 1934, as amended.

Special Operating Conditions or Restrictions

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic fields in excess of FCC guidelines.

- BEFORE PROGRAM TESTS COMMENCE, sufficient measurements must be made to establish that the operation authorized in this construction permit is in compliance with the spurious emissions requirements of 47 C.F.R. Sections 73.317(b) through 73.317(d). All measurements must be made with all stations simultaneously utilizing the shared antenna. These measurements must be submitted to the Commission with the FCC application for license.
- THE AUTOMATIC PROGRAM TEST PROVISIONS OF 47 C.F.R. § 73.1620 DO NOT APPLY IN THIS CASE. A FORMAL REQUEST FOR PROGRAM TEST AUTHORITY MUST BE FILED WITH THE FCC APPLICATION FOR LICENSE BEFORE PROGRAM TESTS WILL BE AUTHORIZED. This request must contain documentation which demonstrates compliance with the following special operating condition:
- The permittee/licensee must, upon completion of construction and during the equipment test period, make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. If necessary, a fence must be erected at such distances and in such a manner as to prevent the exposure of humans to RF fields in excess of the FCC Guidelines (OET Bulletin No. 65, Edition 97-01, August 1997). The fence must be a type which will preclude casual or inadvertent access and must include warning signs at appropriate intervals which describe the nature of the hazard. Any areas within the fence found to exceed the recommended guidelines must be clearly marked with appropriate visual warning signs.

- BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit the results of a complete proof-of-performance to establish the horizontal plane radiation patterns for both the horizontally and vertically polarized radiation components. This proof-of-performance may be accomplished using the complete full size antenna, or individual bays therefrom, mounted on a supporting structure of identical dimensions and configuration as the proposed structure, including all braces, ladders, conduits, coaxial lines, and other appurtenances; or using a carefully manufactured scale model of the entire antenna, or individual bays therefrom, mounted on an equally scaled model of the proposed supporting structure, including all appurtenances. The proof-of-performance may also be accomplished using computer modeling, assuming it satisfies all of the requirements of 47 C.F.R. Section 73.316. (See 47 C.F.R. Section 73.316(c)(2)(iv)). Engineering exhibits must include a description of the antenna testing facilities and equipment employed, including appropriate photographs or sketches and a description of the testing procedures, including scale factor, measurements frequency, and equipment calibration.
- BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit a certification executed by a licensed surveyor showing that the FM directional antenna system has been oriented at the azimuth(s) specified in the directional antenna proof of performance. This certification must include a description of the method used by the surveyor to determine the azimuth(s) of the installed directional antenna system and the accuracy of that determination.
- BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit an affidavit that the installation of the directional antenna system was overseen by a qualified engineer. This affidavit must include a certification by the engineer that the antenna was installed pursuant to the manufacturer's instructions and list the qualifications of the certifying engineer.
- BEFORE PROGRAM TESTS ARE AUTHORIZED, the permittee must submit an exhibit demonstrating that the measured directional antenna pattern complies with the appropriate community coverage requirements of 47 C.F.R. Sections 73.315 or 73.515 (See 47 C.F.R. § 73.316(c)(2)(ix)(B)).
- The RMS of the composite measured relative field horizontal plane directional antenna pattern must encompass at least 85% of the RMS of the composite relative field horizontal plane directional antenna pattern authorized by this construction permit.
- The relative field strength of neither the measured horizontally nor vertically polarized radiation component shall exceed at any azimuth the value indicated on the composite radiation pattern authorized by this construction permit. A relative field strength of 1.0 on the composite radiation pattern herein authorized corresponds to the following effective radiated power: 5.2 kilowatts. Principal minima and their associated field strength limits: 100 to 230 degrees True (clockwise): 0.172 kilowatt.

Subject to the provisions of the Communications Act of 1934, as amended, subsequent acts and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions set forth in this permit, the permittee is hereby authorized to construct the radio transmitting apparatus herein described. Installation and adjustment of equipment not specifically set forth herein shall be in accordance with representations contained in the permittee's application for construction permit except for such modifications as are presently permitted, without application, by the Commission's Rules(See Section 83.875).

Pursuant to Section 73.3598, this Construction Permit will be subject to automatic forfeiture unless construction is complete and application for license is filed prior to expiration.

Equipment and program tests shall be conducted only pursuant to Sections 73.1610 and 73.1620 of the Commission's Rules.

