



NARRATIVE STATEMENT

By this application, the East Kentucky Power Cooperative, Inc. ("EKPC"), respectfully requests special temporary authority ("STA") to evaluate the functionality of a radio communications system designed to support the internal communications requirements, including public safety-related communications, of an electric power generation and transmission cooperative in the Commonwealth of Kentucky. EKPC is a not-for-profit electric utility that provides generation, transmission and support services to 16 distribution cooperatives in the Commonwealth of Kentucky. Together, EKPC and the cooperatives supply electricity to over 500,000 Kentucky homes, farms, businesses and industries across 87 counties. The cooperatives also provide a number of public safety and homeland security benefits, including the ability to act as first responders to utility-related crises or disasters and to monitor unauthorized access to critical infrastructure equipment and facilities.

Specifically, EKPC proposes to operate mobiles with an effective radiated power of 45 watts to evaluate the acceptability of the system. The operations will be conducted on a non-interference basis using a limited number of non-Federal Government channels in the 150 MHz band allocated under Part 80 of the Commission's rules that have already been pre-coordinated for such operation. The test does not involve operations on channels listed in Section 90.20 or other sections of Part 90 allocated to the Public Safety pool. EKPC understands that the FCC may specify these as well as other conditions on its authorization.

The following information is provided in support of this request:

Proposed Operations / Locations and Frequencies:

As noted above, EKPC requests authority to evaluate a radio communications system designed to support the internal communications requirements of a power generation and transmission cooperative engaged in, among other things, public safety activities. To obtain valid data and to present an accurate demonstration of real-world operations, EKPC must deploy a sufficient number of units during its test to simulate actual usage. EKPC expects that it will be able to complete its demonstration with a small percentage of the units to be supported by the final system. Specifically, it proposes to test the system with a maximum of 100 mobile units or portables per transmitter site that will be designed to support up to 2000 total units. Thus, it will operate on less than 1% of the number of units that are planned for the system. It will also limit the power, area of operation, and transmitting times to the minimum necessary to evaluate the system.

The proposed locations of the base stations are identified in the attached table. Mobile operations will occur within 80 kilometers of these locations. Operation under this experimental STA will be conducted on a non-interference basis on a limited number of 12.5 kHz channel pairs in the 157.1875 – 157.4125 MHz band and the 161.7875 – 161.9125 MHz band. Notably, EKPC does not propose to operate on any channel allocated either on an exclusive basis or on a shared basis with the Federal Government, including without limitation channels allocated for Federal Government use in the 161.9625 — 161.9875 MHz and 162.0125 — 162.0375 MHz bands. EKPC will operate only on non-Federal Government channels.

Technical Specifications:

On Non-Federal Government, Non-Public Safety Frequencies Only:	157.1875 – 157.4125 MHz; 161.7875 – 161.9125 MHz
Base Station Power:	100 W Peak Effective Radiated Power (ERP) 100 W Transmitter Output Power (TPO) (all power levels will comply with the limits set forth in the FCC's rules, including those relating to human exposure to radiation)
Mobile Power:	45 W Peak ERP; 45 W TPO
Bandwidth:	12.5 kHz per channel
Modulation:	Frequency Modulation
Emission Designators:	11K2F1D; 11K2F3E
Station Antenna:	Omnidirectional up to 9 dBi Gain
Mobile Antenna:	Omnidirectional up to 3 dBi Gain

Antenna Information:

The antennas used for these tests will be installed and operated in accordance with all FAA and FCC rules and regulations.

Restrictions on Operation / Interference Protection:

EKPC recognizes that experimental operations must not cause harmful interference to authorized facilities. As stated above, operation under this experimental STA will occur only on a limited number of 12.5 kHz channel pairs on non-Federal Government channels allocated under the FCC's rules and that have pre-coordinated or applied for such use. EKPC will also coordinate with existing licensees, as necessary, but has selected and pre-coordinated channels that are not assigned in the test area or that are sufficiently distant so as not to pose interference concerns. Should interference occur, however, EKPC will take immediate

steps to resolve the interference, including if necessary arranging for the discontinuance of operation.

In addition, EKPC will advise entities participating in the test that permission to operate has been granted under experimental authority issued to EKPC, that such operation is strictly temporary, and that the operation may not cause harmful interference.

EKPC also requests a waiver of the station identification requirements set forth in Section 5.115 of the Commission's rules, 47 C.F.R. § 5.115 (2013).

Public Interest Statement:

EKPC submits that issuance of expedited special temporary authority as requested is in the public interest, convenience, and necessity. Grant of such authority will permit EKPC to design and develop an innovative system that will accommodate the public safety communications needs of a electric power generation and transmission cooperative.

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EXPERIMENTAL TEST LOCATIONS

City/ Site Name	Address	Latitude; Longitude (NAD83)
Brooks, KY	N of Brooks Hill Road 600 ft. W of Holsclaw Hill Road 1.5 mi W of Brooks	38°03'46.0N 85°44'15.0W
Campton, KY	Wilgus Tolson Road	37°44'34.1N 83°32'43.4W
Williamstown (Folsom)	Off Warsaw Road 7 mi W of Dry Ridge	38°42'0.0N 84°43'11.0W
Bardstown (Garrison Lane)	Garrison Lane & KY 1858 5 mi ENE of Bardstown	37°49'55.2N 85°22'53.5W
Howe Valley	.75 mi S of Int of Rt 86 & Howe Valley Road	37°40'35.2N 86°05'10.9W
Gray, KY (Johnson Hollow)	2205 Johnson Hollow Rd	36°56'41.2N 83°58'10.3W
Garrett, KY	189 Babe Bolen Drive	37°27'14.1N 82°53'21.1W
Staffordsville, KY	499 Caldwell Branch Rd	37°48'37.5N 82°52'20.0W
New Castle, KY	N of Int of KY 1861 Jackson Rd 2.4 mi SW	38°24'54.0N 85°12'39.0W
Walton, KY (Stanley Parker)	EKPC Switchyard 3 mi NE of Walton	38°53'44.2N 84°34'46.7W
Stanton, KY	On KY Hwy 213 2.3 mi SSE	37°48'34.3N 83°50'33.7W
Tyner, KY	S of KY Hwy 30 .5 mi SW of Tyner	37°20'23.3N 83°54'20.7W
West Liberty, KY	Old Rte 172 2.4 mi NE of West Liberty	37°56'31.3N 83°13'13.6W

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