

From: Penelope Lucinian

To: Nimesh Sangani
Date: March 25, 2020

Subject: Additional Information Request

Message:

To Whom it May Concern:

Reference No. 53717

AES Corporation ("Applicant" or "AES") hereby responds to the Commission's inquiry dated February 26, 2020 regarding its application for a new experimental radio service license under File No. 0008-EX-CN-2020, as follows:

Please address each of the following questions/concerns:

1) Each one of the three frequency request is too broad. Reduce this request. Please enter the specific discrete frequency that you would like to test otherwise there is high probability that this will get tabled at NTIA. You should be able to do that since you mention in your narrative "actual testing will be conducted on discrete frequencies in each of the bands";

AES is adjusting its frequency request to specify discrete frequencies in each of the three bands, as follows:

30 – 50 MHz Band

33.40 MHz
49.83 MHz

138-174 MHz Band

142.2750 MHz
143.7750 MHz
150.170 MHz
151.8350 MHz
151.9700 MHz
153.1100 MHz
153.6350 MHz
154.5150 MHz
154.5700 MHz
158.4000 MHz
163.9800 MHz
168.7500 MHz
172.2300 MHz

The frequencies 142.2750 and 143.7750 MHz are critical due to equipment design considerations for markets outside of the United States since frequency allocations vary by country. AES designs equipment for use in multiple markets.

406.100 – 470 MHz Band

451.3375 MHz
451.7625 MHz

452.0375 MHz
452.8625 MHz
456.3375 MHz
456.6125 MHz
462.2125 MHz
462.3125 MHz
462.3375 MHz
462.4375 MHz
467.2125 MHz
467.3125 MHz
467.3375 MHz
467.3875 MHz
467.4375 MHz

2) What the total number of equipment per location? What is the number of equipment amongst all your locations?

The total number of equipment per location will vary due to the need to create multiple mesh networks at our proposed hubsite at 285 Newbury Street.

Location 1 – 285 Newbury Street
Peabody, MA (Essex County)

The total number of maximum number of transmitters operating off of the mesh networks at the 285 Newbury Street location (the radius centerpoint) will be a maximum of 150 low power radios within a 5 km radius of the centerpoint. Generally, Applicant will require 60 – 100 low power radio units in order to build its test mesh radio systems – which are designed to simulate its customers's real-world operations so that AES can test for and trouble shoot issues that could arise in the field. The test radios will include a mix of newer, more current model radios as well as some older, legacy radios since its customers are able to operate with a mix of different radios within in their networks. It is important to note that mesh networks for central station alarm applications utilize a number of low-power radios that are installed at customer/subscriber premises locations. These customer premise radios seamlessly transfer alarm signals from one customer premise radio to another until the alarm signal eventually connects to the AES receiver in the central station.

Location 2 – 66 Salem Street
Reading, MA (Essex County)

Maximum total number radio units within the 5km radius of Location 2 will be 20 radio units. Operation will be limited to a single location and associated radius at any one time. Operation time will be a maximum of 12 hours during a day due to temporary location of the equipment.

Location 3 – 461-459 North End Boulevard
Salisbury, MA (Essex County)

Maximum total number in the 5km radius of the location will be 20. Operation for Location 2), 3), or 4) will be limited to a single location and radius at any one time. Operation time will be a maximum of 12 hours during a day due to temporary location of the equipment.

Location 4 – Joppa Flats Public Boat Launch
207 Water St
Newburyport, MA (Essex County)

The maximum total number of radio units within a 5km radius of Location Nos. 2, 3 or 4 described above

will be 20 radio units. Operation will be limited to a single location and associated radius at any one time, meaning that AES does not plan to operate Location Nos. 2, 3 and 4 simultaneously. Additionally, operation time will be limited to daylight hours due to the temporary location of the equipment.

As a result, the Manufacturer Section of FCC Form 442 should be revised, as follows:

Model No.	Quantity
708NUE5	150
708NVE5	150
7880LC2B	150
7350UE5	150
7085UE5	150
7088	8
7088-A	8
7085-UE	8
7080V2	8
7080H	8
7080V	8
7080C	8
C130	8

3) Describe the need for 15 different location requests. Could this experiment be conducted with just 7 or even less location request?

AES has reviewed its location requests and determined that it can be reduced to the four locations as identified below:

Location 1 - 285 Newbury Street
Peabody, Massachusetts (Essex County)
42.555610, -70.978875
42° 33' 20" N, 70° 58' 43.95" W

Location 2 - 66 Salem St.
Reading, Massachusetts (Essex County)
42.526648, -71.099386
42° 31' 35.9" N, 71° 05' 57.8" W

Location 3 - 461-459 North End Boulevard (Essex County)
Salisbury, MA 01952
42.864627, -70.816729
42° 51' 52" N, 70° 49' 00" W

Location 4 - Joppa Flats Public Boat Launch at 207 Water St (Essex County)
Newburyport, MA 01950
42.806128, -70.857415
42° 48' 22" N, 70° 51' 26" W

AES would like to clarify its Stop Buzzer information, as follows:

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Please direct any questions or correspondence regarding this filing to our outside counsel:

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