

From: Bandele Adepoju

To: Nimesh Sangani

Date: December 19, 2018

Subject: Additional Information Request and Concerns

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Message:

To: Bandele Adepoju

E-Mail: [compliancegroup@wirelessseismic.com](mailto:compliancegroup@wirelessseismic.com) From: Nimesh Sangani

Date: December 10, 2018

RE: 45403

Subject: Additional Information Request and Concerns

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-Message:

FCC sent email earlier with the following questions/concerns.

1) Please file a confidentiality request. The confidentiality request must be marked non-confidential. If there is anything else in the application that is confidential please upload that separately and mark it confidential.

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A confidentiality request has been uploaded to the application filing via the FCC/OET ELS ["Reply to Correspondence"](#); hyperlink.

2) Please inform when do you expect to get the equipment approved.

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Due to the complexity of the Wireless Seismic, Inc., (WSI) equipment designs, testing and development are ongoing activities in the design process. WSI equipment designs are recurrently optimized for functionality and manufacturing. WSI discussions with potential test labs on certification strategies for the equipment are concurrent activities. As such, WSI expects to commence certification activities by the end of 2019 or in 2020, and to have obtained full certification of the equipment to 47 CFR Part 15 of the Commission rules very shortly there-after.

3) Exhibit shows 5.8GHz frequency but that is missing in your application.

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The Wireless Seismic, Inc., application has been amended via the FCC/OET ELS ["Amend/Complete Application Page"](#); hyperlink to include the missing frequency information.

4) Please further describe the use of GPS modules. Are you reradiating GPS signal?

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The Wireless Seismic, Inc., (WSI) METIS, RT2 and RT3 seismic systems are equipped with off-the-shelf, 3rd-party, GPS receiver modules for timing and location purposes. The GPS Receivers are compliant with the requirements of 47 CFR Part 15 of the Commission rules. The Pulse Per Second (PPS) timing element received from the GPS transmission is used to synchronize the WSI system's multi-unit seismic sensor samples. The WSI system also uses GPS coordinates for location identification of a specific field test setup. The WSI METIS, RT2 and RT3 seismic systems are not used to re-radiate the GPS signals.

In addition to the above questions/concerns, FCC would like to add the following.

FCC have concerns about the larger number of unapproved devices for nationwide operations. We ask that you identify specific location and the number of units per location. If you want additional locations, then you can file modification as needed to support testing. We are concerned about the installation of

unapproved devices on a long-term basis.

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The Wireless Seismic, Inc., (WSI) application has been amended via the FCC/OET ELS  
&ldquo;Amend/Complete Application Page&rdquo; [hyperlink to identify location and approximate numbers per location.](#)

The WSI equipment is low power wireless telemetry for geophones used in oil and gas exploration. By design, the SRD equipment will operate under 47 CFR Part 15 of the Commission rules. For typical testing, the equipment is placed on the ground in array of networks up to 20 to 100 units. The network number is larger, in the 1000s, for testing in very isolated rural areas where oil and gas exploration is typically being done. While equipment, such as Wi-Fi and Bluetooth units, can reasonably be tested for performance in one or two urban locations, the key issue in testing for WSI is that equipment performs, as intended, in all terrains for oil and gas exploration and under extreme conditions.

Conversely, the testing in isolated rural areas also means essentially that risk of interference to commercial authorized licensed or unlicensed systems is mitigated. To avoid any possibility of impacting other equipment operating under 47 CFR Part 15 of the Commission rules, use and testing will only be in remote or rural areas and will be at least 100m from any buildings. WSI will retrieve the equipment after completion of each testing.