Spectron
mrc l.l.c.

Kevin G. Null
Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

January 29, 2014

Re: C/N's 582697 and 582699

Dear Mr. Null:

The following response pertains to the additional information you requested.

1. *Provide the radionuclide that will used for the calibration process, the activity level, and describe how and from where it will be obtained.*

We will be using F-18 (Fluorine-18) for the calibration process. The activity level of the radioisotope will be approximately 20 mCi to elicit a response in the detector in the 1E-5 uCi/cc range. The F-18 (Fluorine-18) for the source will be obtained from the cyclotron on site via O-18 (Oxygen-18) water bombardment. The F-18 (Fluorine-18) may come from a direct target unload/rinse from the cyclotron or from an F-18 (Fluorine-18) FDG production run.

2. *Describe how you will measure the activity level of the radionuclide that will be used for the calibration procedure. Describe any equipment that is used to measure the radionuclide.*

The radionuclide required to perform the calibration procedure will be drawn up into a syringe and its activity level measured using a dose calibrator. The dose calibrators make and model we currently are using are Capintec CRC-15PET.

3. *Describe how you will calibrate the equipment that will be used to measure the activity of the radionuclide to assure accuracy of the measurement.*

To ensure the dose calibrator is functioning properly and accurately day to day, the following tests are performed: geometry (upon installation, relocation, or repair), annual accuracy, quarterly linearity, and daily constancy.

If you have any questions, please feel free to contact me at Spectron mrc, 574-271-2800.

Sincerely,

Kirk Rozycki, R.Ph.
Radiation Safety Officer

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