



Region I Office
Division of Radiological Safety and Security
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Telephone Conversation Record

Date: October 27, 2023

License No. 08-03604-03

Docket No.(no hyphens): 03001325

Mail Control/Report No. 637419

Licensee Name: NukeMed, Inc., dba SpectronRX, on behalf of MedStar Washington Hospital Center

Participant(s) Name/Title: John A. Zehner, RSO (NukeMed, Inc.)

Work Telephone No. 574-271-2800

Business Cellphone No. 317-459-8315

NRC Representative Name/Title: Jason vonEhr, Senior Health Physicist

Subject: Regarding the Production, Properties, and Use of Actinium-225

Discussion: Mr. vonEhr of the NRC called Mr. John A. Zehner, RSO of NukeMed, Inc. dba SpectronRX (NRC License Nos. 13-32726-01MD, 13-32726-02, and 13-32726-03) regarding an amendment request from MedStar Washington Hospital Center (NRC License No. 08-03604-03) for the use of actinium-225. The MedStar amendment request (ML23279A082) quoted NukeMed, Inc. dba SpectronRX as the provider of the actinium-225 and stated that no actinium-227 would be present in the product (which is a long-lived potential impurity, depending on the means of production).

John Zehner confirmed that the production method being used for the actinium-225 at NukeMed, Inc. was free of any significant quantity of actinium-227. Mr. Zehner further confirmed the shipping for the product was delayed until the actinium-225 daughter isotopes reached secular equilibrium to readily detect the resultant gamma photons (namely the prominent 218 keV photon from francium-221 and 440 keV photon from bismuth-213). Mr. Zehner further confirmed the non-volatile and stable nature of the DOTATATE to which the actinium-225 is bound, thereby reducing potential radiological handling concerns for the end-user, as well as the extremely limited nature of free (unbound) actinium in the final product.

Action Required: Mr. vonEhr will continue his technical review and prepare an RAI to address certain deficiencies identified with the MedStar amendment request.

SUNSI REVIEW

Document Availability: Public or Non-Public

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SUNSI Review Completed by: JEV