



April 16, 2020

Tomas Herrera  
Team Leader  
NMSS/MSST/MSTB/SSDT  
U.S. Nuclear Regulatory Commission  
11545 Rockville Pike  
Rockville, MD 20852

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RE: Amendment to Exempt Device Registration NR-1101-D-102-E

Dear Mr. Herrera,

Bruker Detection Corporation hereby requests an amendment to our exempt device registration no. NR-1101-D-102-E to include the Water Chemistry RAID-M 100 model. This model is identical to the existing RAID-M 100 listed on our current device registration, with the exception that it does not use a dopant, and it has different detection firmware and software. The reason this device does not use a dopant is that it designed to detect ammonia, and there is ammonia contained in the dopant for the existing RAID-M 100.

The radionuclide and activity in the Water Chemistry RAID-M 100 will remain the same as the RAID-M-100. No additional prototype testing has been performed on this device, nor a radiation profile survey, due to the same construction, The product will use the same operator's manual as the RAID-M 100. The label with the new model name and part number is currently under development.

Enclosed as Attachment A is a table comparing the characteristics of the Water Chemistry RAID-M 100 to the RAID-M 100.

No change is necessary to our quality assurance program on file with the NRC.

Our radiation safety consultant is International Radiation Safety Consulting, Inc. They are authorized to contact you on our behalf.

If you have any questions please call me at 978.633-3660, ex 1307 or email me at [George.Gleason@brukerdetection.us](mailto:George.Gleason@brukerdetection.us)

Sincerely,

A handwritten signature in black ink that reads "George Gleason".

George Gleason  
Radiation Safety Officer

MODEL	RADIONUCLIDE	ACTIVITY	FUNCTION	PART NUMBER	DIMENSIONS (mm)	WEIGHT (kg)
Raid-M 100	Ni-63	2.7 Millicuries	Portable	226533	115 X 400 X 165	2.9
Water Chemistry Raid-M 100	Ni-63	2.7 Millicuries	Portable	8232965	115 X 400 X 165	2.9

MODEL	USE (°C)	HANDLING (°C)	STORAGE (°C)	TRANSPORT (°C)
Raid-M 100	-25/55	-25/55	-30/70	-30/70
Raid-M 100 Water Chemistry	-25/55	-25/55	-30/70	-30/70