

February 2, 2010

Docket No. 03037620

License No. 45-31299-01

James P. Dwyer, Chief  
Commercial and R&D Branch  
Division of Nuclear Materials Safety  
United States Nuclear Regulatory Commission

SUBJECT: REQUEST FOR INFORMATION REGARDING POSSIBLE CONTAMINATION FOUND  
IN A GAMMACELL 40 SELF-SHIELDED IRRADIATOR

Dear Mr. Dwyer,

I am sending this letter in response to your request for additional information from my letter to you on January 26, 2010.

Not including the incident discovered in New York, MDS Nordion has disposed of seventeen Gammacell 40 units (34 sources) and found 11 sources (32%) with some degree of contamination. Five of these sources (15%) had reportable levels of contamination above 5 nCi. MDS Nordion's conclusion was that the cause of the problem is residual contamination that existed within the source capsule weld during manufacture and leached out over an extended period of time (15-20 years). Successful helium leak testing of the contaminated capsules proved that they were not leaking. The contamination is only discovered when disassembling a unit and being in close proximity to the sources.

This problem has only been detected on the C-161 Type 8 sources manufactured at the Oak Ridge National Laboratory and no other sources have exhibited this behavior. This source model was not used in any other device.

If the USNRC deemed it necessary, Best Theratronics would be willing to restart the surveillance during routine preventive maintenance activities and to assist in further investigating, as appropriate.

Please feel free to contact me if you have any other questions or concerns.

Sincerely,



Mike de van der Schueren  
Director, Compliance  
613-591-2100 ext. 2488  
mdvds@theratronics.ca

cc:  
C. Douglas Beatty, Radiation Safety Officer  
Robert Dansereau, New York State Department of Health  
Peter Fundarek, Canadian Nuclear Safety Commission  
Ron McGregor, MDS Nordion