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Revised by \_\_\_\_\_  
Superseded by \_\_\_\_\_  
Reviewed by *JMB* Date \_\_\_\_\_

May 28, 1963



Mr. R. E. Brinkman  
Isotopes Branch  
Division of Licensing & Regulation  
Washington 25, D. C.

RE: License 37-7002-2

Dear Mr. Brinkman:

As arranged some time ago, we are sending information required by you concerning details of our tritium containing detector cells, for use in our chromatographic instruments. We have included details on two similar cells - electron capture and micro cross-section, although the instruction book deals only with electron capture cells.

Below is a summary of data enclosed:

1. Complete drawings of electron capture and micro cross-section detector cells, together with their common heat sink.
2. Temperature limitation of the detector and operating details of same: Appendix I.
3. Results and method used for normal and accelerated life test of components used in (2) above: Appendix II.
4. Results and method used to determine loss of tritium from a cell operating at various temperatures. Appendix III.
5. Results and method used for determining loss of tritium from a cell when washed with solvent for cleaning. Appendix IV.
6. Details of Model number, labels, etc. Appendix V.
7. Instruction manual for Electron Capture section of the instrument. We would like to point out that we may wish to make some grammatical changes and perhaps additions to the operating section. The safety aspects would, of course, remain technically identical. We hope that you can consider this initial copy for approval with the final copy to be sent to you as soon as available.
8. Method of loading cell, details of method of securing source within heat sink and repair details. Appendix VI.
9. Radiation hazard. Appendix VII.
10. Outline of lecture given by Mr. J. Schmit to personnel in Quality Control, Inspection and Applications, who will handle radioactive detection. Appendix VIII.

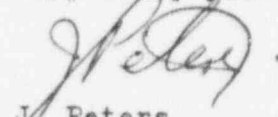
11. Summary of handling and Quality Control of detectors employing radioactive sources. Appendix IX.

12. We would like to assemble the first 5-10 detectors complete with foil in our Research Department rather than send them to U. S. Radium for loading. This would be done personally by Mr. J. Schmit or Mr. J. Peters.

If there are any questions or suggestions concerning this data, please feel free to call J. Peters or J. Schmit at F & M Scientific Corporation, Avondale, Pennsylvania, Area Code 215, COlony 8-2281.

It would assist us if Mr. J. Schmit and myself came down to see you at a time when convenient to you. We could then discuss any matters concerning this data and also the possible general licensing of our detector cells.

Very truly yours,



J. Peters  
Research Chemist

JP:md