PERKIN ELMER

The Perkin-Elmer Corporation
761 Main Avenue
Norwalk, CT 06859-0001

June 05, 1995

United States
Nuclear Regulatory Commission
Sealed Source Safety Division
Mr. John W. Lubinski
Washington, DC 20555-0001

Dear Mr. Lubinski,

The following information is in response to your letter dated May 1, 1995.

Certificates NR-536-D-804-S and NR-536-D-805-S

1. Drawings are attached.

Attachment 1	009-0173
Attachment 2	009-0009
Attachment 3	009-0270
Attachment 4	009-0282

2. The 009-0173 tritium sealed source was a component of the 009-0009 assembly. We have not been able to locate distribution records for this device (obsoleted in 1976 - attachment 5), however, no one that I've interviewed here at PE believes that these are in use today due to the performance limitations and relatively short half-life of tritium (most of these detectors have deteriorated to less than 25% of their original activity).

The 009-0282 Ni63 sealed source was a component of the 009-0270 assembly. Our records indicate that 1906 sources were manufactured between 1968 and 1989 (the vast majority between 1969-1979). Shipments ceased in 1991. Historically, 40% of our gas chromatograph sales are to US customers, therefore, 750-800 sources were distributed domestically. From our service records, we estimate that 4-10% of these may still be in the field.

3. Perkin-Elmer has not offered services on the 009-0173 for almost 20 years.

All services, i.e. disposal - repair - cleaning, for the 009-0282 are referred to our source manufacturer, NRD, Inc., Grand Island, NY. PE neither accepts these cells for disposal nor provides exchanges.

4. Refer to drawings provided, attachments 1-4.

5. Maximum temperature of 009-0173 is 225 C.

Maximum temperature of 009-0282 is 350 C.

6. Both the 009-0173 and 009-0282 are sealed sources sharing the same housing Since the detector cell wall is far in excess of the maximum energy beta particles emitted, surface readings are not expected to exceed ambient. See Eng. Report #658 (attachment 6) for details of testing.

7. See attachment 6 for prototype testing. Attachments 7 and 8 detail the safety of Ni63 sealed sources for use in gas chromatography.

Tel (203) 762-1000
Fax (203) 762-6000

Certificate NR-536-D-806-B

8, 9, 10, 11 See attachment 9.

Certificate NR-536-D-807-S

12. Drawings are attached.

Attachment 10	105-0210
Attachment 11	105-0212

Drawing 105-0202 is no longer on file.

13. From interviews with PE personnel, it is estimated that less than 25 ECDs were shipped within the US. None of these cells are believed to be in service today.

14. No sources are believed to be in service, however, all services, i.e. disposal - repair - cleaning, for the 105-0210 cell are referred to our source manufacturer, NRD, Inc., Grand Island, NY. PE neither accepts these cells for disposal nor provides exchanges.

15. Certificate marked and attached.

16. The 105-0210 is the sealed source containing the radioactive Ni63 foil. The 105-0212 is the detector assembly containing the 105-0210 sealed source, heater, sensor, and temperature limit switch. Since the 105-0202 drawing cannot be located, I am unable to provide a description.

I hope I have included all the information necessary to properly dispose of the subject registrations. If further information or clarifications are necessary please don't hesitate to call or Fax me.

Sincerely,

John Widomski
Radiation Safety Officer

18 Attachments