

Mr. John McGrath  
Nuclear Material Safety Branch  
U. S. Nuclear Regulatory Commission  
Region I  
475 Allendale Road  
King of Prussia, PA 19406

25 January 1994

Amersham Corporation  
40 North Avenue  
Burlington, MA 01803  
tel (617) 272-2000  
tel (800) 225-1383



Dear Mr. McGrath

We request an amendment to our radioactive materials license number 20-12836-01 to increase our possession limits as given below.

6. Byproduct, source and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
F. Iridium-192	sealed sources or special form	150,000 curies
G. Iridium-192	solid metal	100,000 curies

We require this increase due to long term storage of sources returned to us for ultimate disposal from customers and to an anticipated increase in production of iridium sealed sources by approximately 60 per cent due to operational changes at the international level.

In addition we have recently made more accurate assessments of the permanent inventory, and this has shown that the permanent inventory has been slowly increasing over the last two years which takes away from the available inventory for manufacturing sealed sources. To assure that we do not exceed possession limits when there are unexpected changes in the supplier reactor cycles, we need to be able to possess greater quantities.

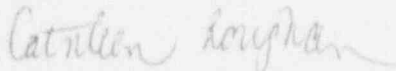
We have reviewed these possession limits against the financial assurance requirements in 10 CFR 30.35 and the emergency plan requirements in 10 CFR 30.32(h) and based on the following information have determined that there are no changes required to our existing program to comply with these.

10 CFR 30.35(a) and 30.35(b) only apply to unsealed and sealed sources with a half life of greater than 120 days, Iridium-192 has a half life of 74 days.

Amersham has received an exemption from the requirement to have an emergency plan based on the condition that we limit the amount of unsealed iridium-192 in the hot cells to 6000 curies. This requirement is listed as condition 15 on our current license. Although we are increasing the amount of unsealed Iridium-192 we can possess, we will not have more than 6000 curies open at any one time in the hot cells. The additional unsealed Iridium-192 will be stored in screw top capsules which are secured in shielded storage containers as described in our original request for an exemption from the emergency plan requirements.

I have enclosed the applicable amendment fee in accordance with 10 CFR 170 of \$460 to process this request. If you have any questions concerning this request or would like additional information, please contact me at extension \*210.

Sincerely,



Cathleen Roughan  
Regulatory Affairs Manager