

**FEE REPORT FORM  
Accelerator Licensing**

Environmental Protection / Radiation Protection  
Agency

\_\_\_\_\_  
November 13, 2007  
Date

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	<u>2006</u>	<u>2007 est.</u>	<u>2008</u>	<u>2009</u>
<b>FEE COLLECTIONS:</b>				
Current	\$255,200	\$255,200		
Proposed			\$ 355,110	\$ 355,110

**FEE TITLE AND RATE:**

- |          |  |
|----------|--|
| Current  | <p>25 PA Code 218.11(i), Accelerators below 50 MeV other than for ion implantation - \$1500 for the first accelerator at the facility plus \$500 for each additional unit at that facility.</p> <p>25 PA Code 218.11(ii) Accelerators used for ion implantation - \$500 plus \$50 for each additional unit at the same facility.</p> <p>25 PA Code 218.11(iii) Accelerators above 50 MeV – full cost of staff time to review license applications and conduct inspections as needed. (Hourly rate is \$50 per hour). A minimum annual fee of \$1500 for the first accelerator at a facility plus \$500 for each additional unit is established.</p>    |
| Proposed | <p>25 PA Code 218.11(i), Accelerators below 50 MeV other than for ion implantation - \$2,100 for the first accelerator at the facility plus \$700 for each additional unit at that facility.</p> <p>25 PA Code 218.11(ii) Accelerators used for ion implantation - \$700 plus \$70 for each additional unit at the same facility.</p> <p>25 PA Code 218.11(iii) Accelerators above 50 MeV – full cost of staff time to review license applications and conduct inspections as needed. (Hourly rate is \$150 per hour). A minimum annual fee of \$2,100 for the first accelerator at a facility plus \$700 for each additional unit is established.</p> |

**FEE OBJECTIVE:** To recover the Department's costs in reviewing new license applications and renewals, inspect the facilities and conduct necessary compliance activities.

**FEE RELATED ACTIVITIES AND COSTS**

1. Detailed review of proposed design, operating procedures and radiation safety procedures for the proposed installation by Central and Region Offices.
2. Inspections of the facility before, during, and after construction to ensure that the design and procedures are followed.
3. Periodical and on demand inspections throughout operational life.
4. Technical and legal investigation of overexposures and medical events as needed
5. Specialized staff training and/or use of consultants if needed.
6. Central Office / Regional Office Supervisory and management oversight.

**ANALYSIS:** The complexity and rate of evolution in the use of particle accelerators in medicine, especially cancer treatment, has been increasing rapidly in recent years. Novel uses in proton and neutron therapy may soon be coming into the mainstream. Operation in radiation therapy is becoming computer driven and problems with the interrelation of human, hardware and software failure is more complex to regulate. Unlike X-ray machines which in general are standardized in design, installation and operation, and because of the potential for serious harm to patients, accelerators require more regulatory attention during the design and pre-operational and early post-operational stages, require more attention to shielding design, performance testing, and safeguards with a need for more frequent inspection. Regulatory oversight requires maintaining up to date knowledge of the technology, specialized training and equipment.

Based on a comprehensive workload analysis of the Radiation Control Program, including the additional responsibilities associated with achieving and maintaining Agreement State Status, the Department is proposing increases to the Radiation Control fees to cover program costs, including increases in salaries, benefits and operational expenses (including information technology, training, lab services and equipment costs). The figures below set forth the costs that are associated with the accelerator licensing activities of the Radiation Control Program from the present date until 2011. The personnel costs are representative of the staff (pay grade specific salary + benefits/per position) needed to maintain accelerator licensing and inspections of approximately 250 complex, high-energy x-ray machines. Salary, benefits and operational expenses itemized below reflect a 30% increase since 2001. The current mandated union contract will cause an additional 20% increase in personnel costs over the next four years.

As indicated in the table below, the total estimated annual costs associated with the accelerator licensing program activities of the Bureau of Radiation Protection ranges from \$338,000 to \$375,000. The projected revenue for the program, assuming the effectuation of the proposed fee increase, is \$355,100 for 2008. Thus, the projected amount collected in revenue covers the estimated costs of the program.

**Accelerator Licensing – Anticipated Expenses**

<b>Anticipated Expenses</b>	<b>\$ Applicable to FY 07/08</b>	<b>\$ Applicable to FY 08/09</b>	<b>\$ Applicable to FY 09/10</b>	<b>\$ Applicable to FY 10/11</b>
Personnel Costs	\$ 276,834	\$ 291,540	\$ 307,063	\$ 326,542
IT Charges (Including Computer Maintenance, eFACTS upgrades, etc.)	16,770	18,920	13,975	15,050
Specialized Equipment (Including Calibration Costs, etc.)	22,790	21,715	17,200	17,630
Specialized Training	14,620	14,620	8,600	8,600
Lab Services/Consultants	7,525	7,525	7,525	7,525
<b>TOTAL</b>	<b>\$ 338,539</b>	<b>\$ 354,320</b>	<b>\$ 354,363</b>	<b>\$ 375,347</b>

**RECOMMENDATION AND COMMENT:** Approve the proposed regulations. The Radiation Protection Advisory Committee (RPAC), which includes representatives from medical, industrial and research facilities that use accelerators, have been included in the review of the proposed fees, and they support moving forward with the proposed fee increase. The source of revenue for this program is a user license fee. The fee has not been adjusted to compensate for changes in program costs since November 2001.