

decrease the likelihood that State and local governments and/or the general public would have to bear the costs of decommissioning, should a licensee be unable to do so.

The benefit of the rulemaking is enhanced assurance of adequate funding for timely decommissioning. As stated above, there are gaps in the current financial assurance regulations permitting some licensees to provide financial assurance that does not cover the full cost of decommissioning, mainly due to large increases in decommissioning costs since the financial assurance regulations were put in place. Allowing these gaps to remain could increase the likelihood of inadequate funding for timely decommissioning.

The effect of inadequate/untimely funding of decommissioning may have adverse impacts on public health and safety. If a site is not decommissioned due to insufficient funds there is an increased likelihood of contamination and/or exposure of members of the public. The changes to the regulations are concentrated in areas where the likelihood of inadequate funding relative to decommissioning costs appears to be relatively high. First, the financial assurance requirements are imposed only on those licensees having the highest possession limits, and thus the potential for highest doses. Only about 10 percent of materials licensees must provide financial assurance. Second, the changes in this plan address situations where risk of inadequate funding of decommissioning obligations is greatest—where required amounts of financial assurance appear to be substantially less than decommissioning costs.

Failure to provide adequate financial assurance for decommissioning also has equity considerations. The potential public costs involved in cleanup of contaminated facilities where financial assurance is inadequate must be considered. Equity considerations call for adequate financial assurance so that a licensee's decommissioning costs are borne by the licensee.

The changes to the regulations are focused on areas where the likelihood of inadequate funding relative to decommissioning costs is high. The changes address situations where currently required amounts of financial assurance appear to be substantially less than decommissioning costs. The changes would provide approximately \$80 million in additional financial assurance.⁴

These amendments were developed prior to recent heightened concerns about security of nuclear material. Because the objective of the amendments is to ensure that adequate funds are available to provide for the timely decommissioning of nuclear facilities with appropriate disposal of radioactive materials, these amendments should also enhance security of nuclear materials.

Changes are being made in four areas:

(1) Large sealed source licensees, *i.e.*, large irradiators, would not be permitted to use the certification amounts, and would have to base their financial assurance on a site-specific decommissioning cost estimate;

(2) All waste broker licensees (waste processors and waste collectors) would have to provide financial assurance, would not be permitted to use the certification amounts, and would have to base their financial assurance on a site-specific decommissioning cost estimate;

(3) The certification amounts for licensees would be increased by 50 percent; and

(4) Decommissioning cost estimates would have to be updated at least every 3 years.

Analysis of Public Comments

Eight comment letters were received. Three were from industry organizations, four from corporations, and one from an individual health physics professional. The comments and staff responses are summarized below:

A. Comments Regarding Requirements for Large Sealed Source Licensees

NRC's previous requirements allowed all sealed source licensees to use a certification amount as a basis for financial assurance. The proposed revisions modified this requirement by requiring sealed source licensees above a specified threshold (*i.e.*, possession limits in excess of 10^{12} times the applicable quantities of appendix B to part 30) to prepare and submit site-specific decommissioning cost estimates in place of certifications of financial assurance. The comments raised three issues related to this proposed change.

1. Residual Market Value of Sealed Sources

Comment: Several commenters argued that NRC's proposed rule is based on an overestimate of large irradiator decommissioning costs because NRC fails to take into account the residual

market value of sealed sources. The residual market value of the sources is substantial, and should be considered as an offset to decommissioning costs. The NRC is unjustified in ending the use of certification amounts by large irradiators because actual decommissioning costs for large irradiators, considering the residual value of sources, would still be less than the proposed certification amount for sealed source licensees of \$113K. With the cost of removal and transport being recovered from the resale or redistribution value of the sources, there is little difference in decommissioning costs of large versus small irradiators, and the \$113K figure should be adequate.

One commenter asserted that the cobalt-60 used in large irradiators sells for about \$1 per curie or more; therefore, a facility with 2 million curies should be able to sell its inventory for some significant fraction of its \$2 million market value. Decommissioning such a facility would likely result in little or no out of pocket cost (such as the supplier handling charge assumed by NRC in NUREG/CR-6280) and perhaps a positive cash flow. The commenter then provided two examples where the commenter decommissioned licensee facilities in part to obtain title to cobalt-60 worth between \$0.25–\$1 per curie or more. As a result of this residual value, NRC's proposal to require large irradiators to prepare a site-specific decommissioning cost estimate actually would result in reduced amounts of financial assurance (due to consideration of the value of the sources), while placing an unnecessary burden on licensees.

Another commenter extended a similar argument to items in finished goods inventory, other saleable goods in inventory, and active or contaminated equipment that could be used elsewhere. This commenter stated that it is unfair and beyond the boundaries of good business practices to consider assets as liabilities just because they are radioactive, and NRC has not established within its regulations the difference between radioactive materials with residual value and radioactive materials as waste.

Response: The NRC agrees that the proposed rule does not take into account the residual market value of sealed sources. This approach is both appropriate and consistent with existing NRC policy. For example, current

⁴ The estimate is based on numbers of licensees using each of the 3 certification amounts, and the

differential between the revised certification amounts and former certification amounts for each of the 3 groups.