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PROPOSED RULE PR-30,40,61 et al
(50 FR 23960)

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October 1, 1985

OFFICE OF SECURITY
DOCKETING & SERVICE
BRANCH

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555

ATTN: Docketing and Service Branch

SUBJECT: ANPRM Regarding Financial Responsibility Requirements
Applicable to NRC Licensees for Cleanup of Accidental
and Unexpected Release of Radioactive Materials

REF: Federal Register, Vol. 50, No. 110, June 7, 1985

LICENSE: 12-11184-01; 12-11184-02G

Gentlemen:

Kay-Ray is a manufacturer and supplier of gauging devices which incorporate radioactive source materials. While Kay-Ray is not a user of gauging devices as outlined in the purpose and scope section of the ANPRM, we are very concerned regarding the impact that any final rule will have on our customers, who are material licensees, and thus feel that our comments relevant to the ANPRM are necessary and appropriate.

Kay-Ray gauges typically incorporate low activities (5 to 1000 mCi) of the following isotopes: Americium (Am241), Cesium (Cs137), Cobalt (Co60), or Radium (Ra226). Cs137 is the most commonly used isotope. In a typical industrial application of a Kay-Ray device for measurement of density, level, or weight, the source housing and detector are mounted on opposite sides of a process pipe. The source housing is made of steel and lead to contain the gamma radiation emitted by the doubly encapsulated source material in the center. A lockable steel and lead shutter controls the gamma beam. When the shutter is closed, the beam is contained. When opened, the finely defined beam passes through the pipe to a lead-shielded detector. The

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lockable shutter mechanism, which is operated by an external handle, totally isolates the source when in the closed position. Thus the device is completely safe during shipment, installation, and vessel maintenance. Source housings are specifically selected for each source size and application to assure that all radiation regulations are met.

With this background, we respectfully request the NRC to consider our response to those questions posed in the ANPRM which we feel are pertinent to Kay-Ray:

1. Describe the extent and nature of financial responsibility problems, if any, for the cleanup of accidental releases of materials licensees.

RESPONSE: In general, Kay-Ray supports the concept of financial responsibility relative to the cleanup of accidental releases of radioactive materials. However, since Kay-Ray uses sealed sources at low activities, the likelihood of a major accidental release, either at Kay-Ray or at our customer's site, is quite remote. Therefore, Kay-Ray and its customers should be exempt from these requirements. In the unlikely event of an accidental release of radioactive material at Kay-Ray, our own service technicians would assist the Kay-Ray Radiation Safety Officer to effect the cleanup effort. It is expected that the expenditure of \$2000 would be necessary to retain a waste disposal company to remove the contaminated material. Also, Kay-Ray is positioned to provide advice and guidance in this regard to our customers as well.

- 2(a) What criteria (such as half-life, physical form, type of encapsulation and amount of radioactive material) should NRC use for determining the amount of coverage to be required for different classes of licensees?

RESPONSE: Kay-Ray strongly feels that the NRC should create different levels of coverage for different classes of licensees and suggests that criteria such as half-life, physical form, type of encapsulation, type of source housing used, and level of activity be employed in determining the extent of coverage required. Kay-Ray believes that it would be inappropriate to adopt any financial responsibility requirements until the NRC has performed detailed analyses to establish the appropriate level of coverage--if any--for each class of licensee.

2(b) What effect would the cost of the coverage have on licensee operations?

RESPONSE: The impact which a financial responsibility requirement may have upon licensees, both from a direct cost and an administrative burden standpoint, is of prime concern to Kay-Ray. Our customers are material licensees, who would be covered by the types of financial assurance contemplated by this ANPRM. We would hope to eliminate any undue costs or burdens, since this, coupled with the existing licensing costs, will cause many Kay-Ray customers to forsake nuclear gauging in favor of alternate non-nuclear technologies. In addition to entailing a substantial detriment to Kay-Ray, such a result would not comport with the promotion of the peaceful use of nuclear energy nor with the development of nuclear energy to strengthen free competition in private enterprise as envisioned by the Atomic Energy Act of 1954. Furthermore, other industrial firms that use non-radiological substances are not necessarily burdened by these kinds of requirements.

2(c) How large should the financial responsibility requirement be? Should there be a uniform minimum amount, or a "sliding scale" requirement, to match the financial requirements to the actual risks of various types and quantities of materials possessed, or the financial size of the licensee? If so, what criteria are suggested in this regard?

RESPONSE: Except in very rare, extraordinary situations, cleanup costs for users of industrial nuclear gauges are so small (\$2000 to \$5000) that they can be handled as part of the normal cost of doing business. Since our gauges are sold primarily to large corporations, this cost will not be onerous. For other types of licensees, we recommend the establishment of a sliding scale to equitably match financial assurance requirements to the actual risks involved. The criteria set forth in our response to 2(a) would provide a valid basis for this sliding scale. If some type of insurance is determined to be the appropriate vehicle to demonstrate financial assurance, we feel that, to minimize administrative burden for those licensees on the low risk end of the sliding scale, a one-time certificate of insurance with provisions for update in the event of changes in coverage would be sufficient.

2(d) Should the Commission exempt licensees with certain types or quantities of radioactive materials. . . ?

If so, what cutoff criteria should be applied?

RESPONSE: We estimate that there are about 30,000 industrial nuclear gauges in the USA of the type distributed by Kay-Ray. To the best of our knowledge and belief, none of those installations have ever had an accidental release of radioactive material. Because of this exemplary safety record, we feel that users of certain sealed source gauges [in particular, Cs137 (10 Ci and smaller), Co60 (5 Ci and smaller), and Am241 (10 Ci and smaller)] should be excluded from the proposed extraordinary financial responsibility requirements. It seems inappropriate and unnecessary to impose additional costs on this category of licensee in view of the lack of evidence of the need for such costs.

2(e) Should the Commission consider increasing the amount of coverage for licensees whose facilities have poor safety and/or inspection histories?

RESPONSE: The amount of coverage if any, should be fixed; the insurance companies can set their premium rates based on the safety and/or inspection histories of the licensees. It would not be feasible for the NRC to set up a rating system, given the very large number of material licensees and the relatively infrequent NRC inspections of those licensees. The NRC was unable to create a performance-based rating system for nuclear power reactors, even though those licensees are subject to virtually continuous NRC inspections.

2(j) and 2(l). Are there financial assurance mechanisms. . . to provide coverage for environmental restoration. . . ? Should the Commission also consider requiring licensees to provide evidence of financial responsibility for the non-radiological component of cleanup...?

RESPONSE: We are opposed to extending the financial responsibility requirements to environmental restoration. There are no standards to be used, the Atomic Energy Act does not have any requirement, the National Environmental Policy Act doesn't explicitly require this to be covered, and there is no comparable requirement for nuclear power reactors.

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2(m) How should the Commission consider setting up such a program so that it is promptly notified when there is a change in the financial status of the license?

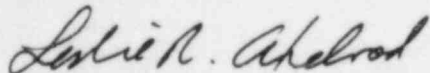
RESPONSE: We are opposed to financial status reporting as unnecessarily burdensome. Financial reporting by the large number of material licensees would do no more than create the need for a large NRC staff to review the large quantities of reports that would be generated. If any financial assurance requirements are imposed, that should be enough.

2(n) Should the Commission consider differentiating between the intentional and accidental releases?

RESPONSE: Kay-Ray questions the propriety of differentiating between intentional and accidental releases at the time that initial financial responsibility requirements for a licensee are set. It would seem that such distinctions are more appropriate in determining whether additional financial responsibilities or NRC imposed sanctions are required for a given licensee after an intentional release.

Kay-Ray appreciates the opportunity to respond to the subject ANPRM. Should questions arise or additional information become necessary, please contact the undersigned at 312/259-5600.

Sincerely,
KAY-RAY, INC.



Leslie R. Axelrod
Vice President, Research & Engineering

LRA/sr