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RADIATION PROTECTION SERVICES, INC.

P.O. Box 2359, Darien CT. 06820

August 5, 1982

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

Attn: Docketing and Service Branch

Proposed rulemaking - 10 CFR Part 34 Re:

PROPOSED RULE TR-3

Dear Sir:

In response to NRC's advance notice of proposed rulemaking to Title 10 Code of Federal Regulations, Part 34 to require third party certification of industrial radiographers, Radiation Protection Services, Inc. (RPS) wishes to submit its comments for review.

RPS is in general agreement with the Commission to require third party certification of industrial radiographers. Although a formal training and certification process will not directly reduce the occurance of operator overexposure, it would make the radiographer aware that a minimum competancy requirement does exist and that job performance vis-a-vis the A.L.A.R.A. philosophy is a criterion for re-certification (ie- continued employment).

A third party certification program woul best include a formal training program in association with a certifying examination to ascertain the radiographer's knowledge of radiation safety and protection principles. Concerning the certification of these workers, the medical field has for a long time administered certifying exams to x-ray technologists and nuclear medicine technologists with minimal cost to the worker. The major cost of the program would be the requirement for formal training. The costs of training could be borne by the licensee and as such benefit by reduced total costs for the training program as compared to a set fee (ie-tuition) for training charged on an individual basis to each radiographer. Projected costs are outlined in forthcoming paragraphs. Besides the direct costs of training, an additional expense to the licensee may be increased salary demands from radiographers who now require additional training and certification to operate a radiographic camera.

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add: James Jenes 5650 DL DS10

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RPS does not believe that these costs would place an undo burden upon the small licensee. Costs of the training program and certification for radiographers is a function of licensee size. The costs to a small licensee with correspondingly fewer workers would be less than that compared to a larger licensee with an increased number of workers.

The major portion of our comments will be directed toward radiographer training and the associated cost projection for such a program. RPS is a health physics consulting firm specializing in industrial and medical radiation safety. RPS has experience in providing training lectures to users of radioactive materials housed in irradiators and has been approved by the NRC to provide such training lectures and certify operators (refer to the recent NRC license issued to DEWEY ELECTRONICS CORP. - 27 Muller Road -Oakland - NJ) .

We project that an adequate training program would require approx. 25 - 30 hours of classroom lectures and a post-course review (1-day) of actual work practices to determine if the concepts of radiation safety are being operationally utilized. Costs for such a program would approximate ONE THOUSAND EIGHT HUNDRED FIFTY (\$1850.00) dollars if costs are borne by the licensee as estimated if the services are performed by our firm. Our program would include lectures; audio-visual presentations; training manual (@approx. \$10.00/copy) and and exam. Also included would be a one (1) day post-course site review, An outline of our recommended training program is attached.

RPS currently has a service area which encompasses the States of Connecticut, New York, New Jersey, Delaware and Eastern Pennsylvania. Within our service area, we can reasonably provide this program at the licensees office with no increase in price. For licensees outside our service area, we will still be willing to provide our training course either (1) at our office location in Darien, CT for the price of \$1850.00) with all associated travel expense borne by the licensee; orm (2) at the licensee's facility for the price of \$1850.00 plus associated travel expenses.

We would be willing to provide the NRC with any additional information concerning our training programs. We appreciate the opportunity to express our comments to the Commission and wish to be considered as one of the services to provide such courses upon implementation of these regulations.

Very truly yours,

Michael L.Caprio, Jr., M.

Chief Executive Officer

RADIATION PROTECTION SERVICES, INC P.O. Box 2359 Darien, CT 06820

RECOMMENDED OUTLINE FOR TRAINING PROGRAM

INDUSTRIAL RADIOGRAPHERS

I. Fundamentals of Radiation Safety

- 1. Characteristics of gamma and x-radiation
- 2. Units of radiation dose and quantity of radioactivity
- 3. Mathematics of radioactive decay
- 4. Hazards of excessive exposure to ionizing radiation
- 5. Levels of radiation from radiation producing machines and radioactive materials
- 6. Methods of controlling radiation dose
 - a) working time
 - b) distance
 - c) shielding

II. Radiation Detection Instrumentation

- Use of survey instruments operation, calibration and limitations
- 2. Survey techniques
- 3. Use of personnel monitoring equipmetn
 - a) film badge
 - b) pocket dosimeters
 - c) pocket chambers

III. Radiographic Equipment

- 1. Radiation producing machinery
- 2. Radiographic exposure devices
- 3. Storage containers
- 4. Remote handling equipment
- IV. Pertinent Federal and State regulations
- V. Licensee's Operating and Emergency Procedures
- VI. A.L.A.R.A. concept

RADIATION PROTECTION SERVICES, INC. P.O. BOX 2359 DARIEN, CT 06820

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Mr. Samuel Chilk Secretary of the Commission Nuclear Regulatory Commission Washington, DC 20555

Dear Sir:

PROPOSED RULE PR - 34

I would like to respond to a recent publication. The publicat asked for comments on a proposed rulemaking concerning certification of radiographers.

My thoughts are that unless the third party has the requirement to perform unannounced audits on the licensee, it well do absolutely no good to have a third party involved.

It has been my experience that the present training and testing programs are adequate, but because noone is looking over their shoulders, they tend to get careless. If it were known that they could be subjected to an audit at anytime, I think they would have more tendency to stay alert.

As far as reducing the number of overexposures. I think that's anyones guess. When a radiographer is in the field and on his own, it is very easy for him to have a lapse and ignore all of his training. No amount of training can instill diligents in anyone. If a third party were involved, perhaps it would be just enough to make him think twice befor e doing something that might cost him his certification.

One aspect of the third party proposal that will not be well excepted is cost. The NTT industry is highly competitive and any extra costs could have far reaching affects. The costs should be standard and fees set by the ARC and charged to all. Ferhaps everything should be handled through the NRC so that no fee cutting could take place. The NMC would assign the third party to a particular applicant, much like ASIE does with their survey teams, only the third party would be assigned to the applicant for the length of the certification.

I think a periodic recertification should be mandatory. This will help insure the radiographer keeps up with laws and regulations.

The fee should be on a per person basis and everyone charged by the number of radiographers they employee.

It is difficult to estimate the cost to initiate this system. Probably about \$500.00 per person would be justified, what with making up tests and doing surprise audits.

DS10 Acknowledged by card. 8/11/82 emp

Mr. Samuel Chilk Nuclear Regulatory Commission

My company is interested in becoming a third party organization. Also, we would like to participate in any rulemaking activities that the MRC feels they would like opinions on.

Please keep me informed in this matter and if you think T can be of service, do not hesitate to contact me.

Yours truly

Richard D. McGuire-President