



**CTL ENGINEERING INC.**  
**CONSULTING ENGINEERS**  
**TESTING · INSPECTION**  
**LABORATORY SERVICES**

2860 Fisher Road • Columbus, Ohio 43204 • 614-276-8123

Bjorn Kvammen, Jr., Ph.D., P.E.  
 President  
 C.K. Satyapriya, M.S., P.E.  
 Vice President

DOCKET NUMBER  
 PROPOSED RULE **PR-34** (30)  
**(47 FR 19152)**



Secretary of the Commission  
 U.S.N.R.C.  
 Washington, D.C. 20555

Attention: Docketing and Service Branch

Reference: 10 CFR34-Certification of Industrial Radiographers  
 Comment To Proposed Rules

Gentlemen:

We suggest the present system of permitting licensees to train and designate their own radiographers be maintained without third party certification.

Specific response to questions FR, Volume 47, No. 86, 5/04/82 are as follows:

1. Training may vary from licensee to licensee with regard to quality of training and effectiveness of training. The criteria for training programs and the required approval by the U.S.N.R.C. seem adequate for assuring a minimum standard necessary for safe operation.
2. We see no logical justification for assuming third party certification would reduce the number of overexposures. In fact, third party certification may have the opposite effect. By analogy, third party certification in lieu of Bureau of Motor Vehicles Examination would not assure safer drivers or fewer automobile accidents
3. Third party certification would not motivate radiographers to work more safely. Once a radiographer passed his certification exam, he could "relax". After all, he is "certified", isn't he? The behavioral pattern may well be that his certification gives him the "authority" to bend the rules a little.
4. Some of the undesirable elements in the third party certification program are as follows:
  - A. U.S.N.R.C. Authority is diluted. The licensee deals with the third party, not the U.S.N.R.C.
  - B. Licensee's or Radiographer's may "shop" for the easiest third party agent, if more than one commercial organization is allowed to act as certifier.

8207010219 820625  
 PDR PR

Membership Participation:

- AALA  AAPT  ACI  ACIL  ACS  AGC  ANSI  APA  ASCE  ASM  ASME  ASTM  AWS  
 CSI  GSA  ICBO  ICET  NSPE  OACE  ORMCA  OCA  SAE  UFCA

Also Columbus Testing Laboratory, Inc., Since 1927



DS10

Add: James Jones  
 5650 NL

6/25/82 md

- C. By analogy, U.S.D.O.T.-F.A.A.-Repairman Certification by third party commercial organizations encourage the following (verifiable) scenario:

A "school" offers training to pass the certification exam. An applicant pays the school fee, plus the examination fee. He is then given what amount to "crib sheets" and is "seated and coached by two secretaries" on the answers. Following his "training", he is given the exam and so certified.

- D. Third party certification would be subject to all the foibles as present licensee certification, plus the additional disadvantage of not having case by case review and regulatory authority presently exercised by the U.S.N.R.C.

- E. The authority to issue, withhold, suspend, or revoke licenses, inspect for compliance, and assess penalties by the U.S.N.R.C. is a logical, comprehensible approach. The perceived authority, and real authority, of direct U.S.N.R.C. action in licensing, compliance, and 10 CFR rules and requirements are of primary importance to licensees and radiographers. This is a strong advantage of the present system, and would be diluted, confused, or degraded by third party involvement.

- F. Third party certification would be one more thing for 10 CFR and U.S.N.R.C. to regulate which would ultimately add to work load, cost, probability for criticism, and responsibility for third party actions not under direct control of U.S.N.R.C.

5. Included in the standard should be all of the items presently required for each licensee (on a case by case basis). Basic requirements and general knowledge of applicable sections of 10 CFR, 19 CFR, 29 CFR, 49 CFR relating to the licensee's specific requirements, along with knowledge of the specific licensees' standard operating and emergency procedures, etc.
6. If third party certification is adopted, it should apply to "new" radiographers and those radiographers presently employed who have a history of high exposures or "incidents".
7. If third party certification is adopted, certificates should terminate with employment under a specific licensee's program. Since radiographic operations vary greatly from one licensee to another, e.g., a "shop" radiographer using a low curie

192 IR. source in a permanent installation would not be adequately trained (or need to be) to transport and use a high curriage 60 Co. source in the field. (Additionally, he may not qualify under 49 CFR as a hazardous materials certified driver.) Other factors must also be considered, such as, ability to work under adverse, or differing conditions, such as at elevated heights, in certain environments, etc.

8. Third party certification would further restrict a "small" licensees' ability to respond to variable manpower need. In addition to training and examining a radiographer for his particular license, S.O.E.P. and other company requirements (state, local, 29 CFR, 49 CFR, etc.), he would also have to arrange for third party certification.

There are also larger companies that utilize a "small" licensee capability (i.e., a three or four man RT Department, or quality control function) which would encounter labor union difficulties due to such a program.

Some "small" licensees may be tempted to accept evidence of prior certification in lieu of proper training and evaluation in their own particular operation, with their own brand, model, etc., equipment. This would increase the risk of overexposure, and encourage "free-lancing" by radiographers or "body-shop" operations. Careful attention to this aspect should be given before adopting such a third party program.

9. Third party certification sounds like a get-rich-quick scheme by the perpetrators of the certification program. Such a program would probably incur additional expense by U.S.N.R.C. to control, regulate, etc., the third party certifiers (which would be passed to the licensees). Also, the cost of traveling to the examination site, purchase of "approved study guides", etc., as well as the cost of the examinations would all be an added burden to the licensee. Licensees and/or radiographers might be "encouraged" to use particular brand names of exposure devices, meters, etc., by the third party certifiers which would indirectly increase the cost to the licensee.
10. Of the two systems, the present system is preferable for all of the reasons stated above. However, the present system could stand some improvements. Specifically, a "good" guide, preferably prepared and/or approved by U.S.N.R.C., would be of great help and influence to the "small" licensee. Such a guide (or series of guides),

could be used for training, retraining, evaluating programs and personnel, and good work practice.

Since the rationale is to reduce overexposures by radiographers, other areas should be looked at in preference to certifying radiographers. These areas include enforcement, equipment design, including exposure devices and radiation activated alarms, aids to licensees for training, etc., incentive programs (awards, etc.) and others.

We believe that the U.S.N.R.C. in its supplementary information has failed to justify its stated belief that third party certification would enhance the present system. Budgeting and personnel limitations are not justifiable reasons for adopting third party certification. No correlation between such a change in the program and reduced overexposure, increased radiographer competence or enhanced safety operation is given. (One overheard comment was that "It sounded like a cop-out by the N.R.C."). Our own appraisal is that the comment of "budgetary constraints" does seem to be the operative phrase.

We would suggest that so important a matter be based on "hard" data. Stating beliefs and asking for comments seems inadequate. Question number three (3) seems to be the pivotal question and deals with motivation and safety. Have qualified persons in the behavioral sciences been consulted in formulating the U.S.N.R.C.'s posture in this matter? Have other programs of a similar nature been analyzed? Are there provisions for evaluating such a program prior to its implementation? These are the kinds of questions that should be addressed, rather than budgetary questions.

11. With respect to the two alternatives, the enforcement action in either system should be to restrict or prohibit unsafe action by radiographers. It seems that third party certification (or not) is not a factor influencing enforcement. We feel that a wide range of enforcement actions are necessary since the failure to operate equipment safely or follow established procedures may vary so greatly. This is an area that should be given special and separate attention.
12. A small licensee would bear a disproportionate adverse economic impact under a third party system.



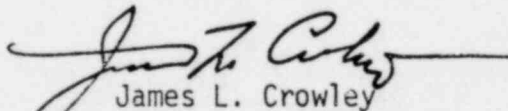
13. We would be interested in participating in a third party program as a certifying agency. Costs would be based on what would be required of us, by the U.S.N.R.C., necessary purchases or costs to acquire equipment, personnel, printed matter, etc., as well as our overhead and profit requirements. Our estimates vary from \$100.00 to \$800.00 (today's dollars) per applicant, based on a minimum inventory of equipment, personnel, and "volume of applicant" projections. We feel that a reasonably accurate estimate cannot be made without additional data.

In summary, we would urge that if a third party certification program must be implemented, that it be done on a voluntary (not mandatory/10 CFR 34), basis for a sufficient period of time to allow an accurate evaluation of the effectiveness of such a program with respect to safety, overexposure, economic impact, and overall effectiveness. We would caution that any evaluation be made on a fair cross-section of participants in and out of the program for a true representation of the radiographers, licensees and program results.

Thank you for the opportunity to comment and your letter advising us of the Public Meeting scheduled on this matter in "our area". Unfortunately, Chicago is not quite close enough to our area to afford our attending without incurring several hundred dollars expense. No doubt many other licensees may feel the same way and will neither attend nor submit comments to the proposed third party certification program.

Respectfully submitted,

CTL ENGINEERING, INC.

  
James L. Crowley  
Radiation Safety Officer

JLC/ddd

# HENRY *Vogt* MACHINE CO.

INCORPORATED

P. O. Box 1918 Louisville, Ky. 40201, U. S. A.

June 22, 1982

Mr. Samuel Chilk  
Secretary of the Commission  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention Docketing and Servicing Branch

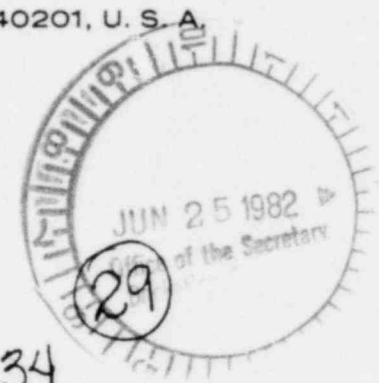
Dear Mr. Chilk:

Subject: Proposed Rule Concerning the Certification  
of Industrial Radiographers

The following comments are in response to your advance notice of the proposed rule concerning the certification of industrial radiographers. As a licensed user of radioactive material in the State of Kentucky we are interested in all proposed rules and programs that effect our industrial radiography program. It is our feeling that a program requiring certification of industrial radiographers by an independent third party would be ineffective in reducing industrial radiography accidents.

The most common type of industrial radiography accident, failing to survey the source container after a radiographic exposure and therefore being exposed to a partially or totally exposed source, is due to a lackadaisical attitude toward safety rules. It is doubtful that a third party certification program would produce radiographers that are more conscientious about properly handling radioactive material.

In the State of Kentucky the problem of failing to complete surveys has been addressed to licensees and radiographers in correspondence from the Radiation Control Branch of the Department for Human Resources. This correspondence has been discussed with radiographers and the problem is one of which the radiographers are quite aware. In addition, since each licensee's operation may be quite different, much of the time spent in a general third party certification program might be spent discussing subjects which have little or nothing to do with the operating procedure at any one radiographer's site. It would be interesting, however, for the Commission to investigate the occurrence of accidents among those radiographers who have undergone independent third party training and those radiographers who have been trained "in-house."



DOCKET NUMBER PR-34  
PROPOSED RULE (47 FR 19152)

DS10  
Add: James Jones  
5650 NL

Acknowledged by mail 6/25/82.mdy

Mr. Samuel Chilk, Sec.  
U.S. Nuclear Regulatory  
Commission

2

June 22, 1982

In summary I do not believe that a third party certification program would reduce the number of overexposures in the industrial radiography industry nor motivate radiographers to work more safely. A conscientious, well organized in-house training program would be much more effective in teaching radiographers safe operating procedures.

Yours very truly,

HENRY VOGT MACHINE CO.

*Dudley B. Spencer*

Dudley B. Spencer  
Supervisor Non-  
destructive Testing

DBS/lh