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August 19, 1982

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59

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

DOCKET NUMBER
PROPOSED RULE PR-34

(47 FR 19152)

Attn: Docketing and Service Branch

Gentlemen:

CERTIFICATION OF INDUSTRIAL RADIOGRAPHERS
10CFR PART 34, PROPOSED RULEMAKING

We have reviewed the NRC's proposal of third party certification of individual radiographers and offer the following comments numbered to correspond with the proposal's questions:

1. The current system of the individual radiography licensee training individuals to become qualified radiographers is sufficient. Any third party certification program would result in additional costs without any benefit being derived by the radiography licensees or their clients. According to the statement of the NDTMA in the supplementary information of the proposal, a major contributing cause of incidents is where radiographers act negligently despite their being provided the proper training, testing and safety equipment. Training and testing of radiographers therefore do not appear to be at fault.
2. There is no basis in the information available to conclude that a third party certification program would significantly reduce overexposures. Any specific proposal for such a program must be supported by a credible analysis showing a sufficient reduction in risk to justify the substantial cost involved in initiating a third party certification program.
3. The individual licensees are in the best position to motivate their employees to work safely. If regulatory action is needed to improve safety, that regulation should be directed at the licensees, rather than toward creating an additional administrative system, the effectiveness of which cannot be confidently predicted.

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The Energy People

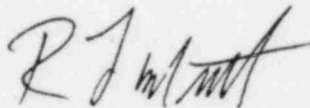
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Acknowledged by card. 8/31/82 emp

9. The costs to radiography licensees of a third party certification program would not be pertinent since these added costs would be passed on to their clients.
10. The present system is preferable because it places responsibility on radiography licensee management and for the reasons outlined in item 1 above.
11. Enforcement actions should not be taken against individuals, unless criminal activity is involved, but against the radiographer licensee. The licensee can apply appropriate punitive measures to the employee(s) involved.

We appreciate the opportunity to comment on this proposal.

Very truly yours,



R. L. Mittl
General Manager -
Corporate Quality Assurance

RJT:mw

AQ37 1/2



POWER PIPING COMPANY

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USNRC

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August 25, 1982

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH
DOCKET NUMBER
PROPOSED RULE

58

PR-34

47 FR 19152

U.S. Nuclear Regulatory Commission
Docketing and Service Branch
Washington, DC 20555

ATTENTION: Mr. Samuel J. Chilk, Secretary of the Commission

SUBJECT: Proposed Rules for 10 CFR 34, Third-Party Certification of
Industrial Radiographers

Dear Sir:

POWER PIPING COMPANY is a metal fabricator of piping subassemblies and component supports. We are strongly opposed to third-party certification of industrial radiographers: we believe the current system is adequate.

We have met the intent of the current regulations to minimize exposure to our radiographers and have maintained exposures well below the permissible levels established by the Commission. Comments on this subject express our specific concerns and are not intended to apply to the entire industry.

Our comments to the thirteen (13) points of interest follow:

QUESTION 1. Is the training provided to radiographers under the present system adequate?

PPCo RESPONSE. We believe that training of PPCo radiographers is more than adequate.

QUESTION 2. Would a third-party certification program reduce the number of overexposures in the radiography industry?

PPCo RESPONSE. Taking what might be called the "ideal" case to be stated for third-party certification and projecting this thesis into our operation, it is difficult to see what possible benefit could be derived. The question perhaps is actually asking, "Will third-party certification make the radiographers pay attention to safety regulations?" We can state that PPCo takes every means at our disposal to get the radiographers to know, remember and live the safety regulations, including possible disciplinary action. It is therefore difficult to see what further motivation would be added by third-party certification.

In order to determine whether third-party certification will reduce overexposures, it is necessary first to determine what the causes of most overexposures are. We have referred to a paper published in 1979 by Mr. Stephen A. McGuire, Occupational Health Standards Branch, USNRC, entitled, "Safety Training for Industrial Radiographers." In it, a study was made of reported radiography overexposures of greater than 5 rems whole body or 75 rems extremity

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dose for the years 1971 thru 1977; he discovered that there were 46 individuals overexposed in a total of 42 incidents (in 4 cases, it was not possible to determine exactly what happened, therefore, the discussion was limited to the remaining 38). We quote:

Radiography overexposure accidents generally happen in three parts. First, the source is left exposed when it should not be. Second, a required radiation survey to assure proper radiation levels is omitted or inadequately done. Third, a lock or plunger to secure the source in its shielded position is not used. . . All three of these failures are usually necessary for an overexposure to occur.

And how is it possible that the source is left in the unshielded position: what are the secondary causes of overexposure? Again we quote:

By far the most prevalent cause is the failure of the radiographer to perform the survey after each exposure. This survey is clearly required by NRC regulations (§34.43(b)). A variation of "no survey" is the incomplete survey where the radiographer does not survey the front of the device or the guide tube.

At this point, looking for the root causes of the failure of the radiographer to perform the required surveys is necessary, but less objectivity and certainty is possible. We now enter the areas of motivation and psychology. It is at this precise point where PPGCo's training attempts to bear down and impress the radiographer with the necessity of performing the surveys--that it is a direct benefit to his own health and safety to follow the regulations, and the results (in graphic pictures) when some radiographers have not followed the regulations.

We must ask: how is third-party certification going to improve this situation? Is third-party certification going to train the radiographer or test them in each licensee's operating and emergency procedures? How is a third party going to be familiar with the many different procedures and systems unique to each licensee? We believe that it is impractical to suggest that a third party could be capable of such detailed training and thus any certification would be meaningless and certainly not reduce overexposures by the smallest degree.

QUESTION 3. Would a third-party certification program motivate radiographers to work more safely?

PPCo RESPONSE. What greater motivation can there be for a radiographer than his own health and safety? We believe it is most useful to stress this part of safety considerations very strongly.

PPCo already has the power of disciplinary action (termination; reduction in classification, etc.): no further motivation is to be gained by third-party certification.

POWER PIPING COMPANY

QUESTION 4. What elements in the present system or in the suggested alternative are particularly desirable or undesirable? Why?

PPCo RESPONSE. As mentioned in our response to Question 2, since the cause of most overexposures seems to be failure to make the required surveys, the most common corrective step is training. Is this because it is the best corrective action or because it is the most convenient? There is no doubt that it is certainly worthwhile (because much training activity conducted by licensees appears inadequate), but much of the time it seems that training includes much information that is not pertinent to the particular job at hand. We believe training should concentrate on actual case histories of accidents and health effects to a larger degree than at present and we have attempted to do just that. Since present regulations can be amended to so indicate and then be performed by the licensees, we see no benefit to be derived from a third party in this area.

Third-party certification would of necessity be performed on a long-term basis (either lifetime, at 5-year intervals, 3-year intervals, or even annually), whereas the licensee sees the radiographer on a much more frequent basis (in most cases, daily); therefore, any proposals for improvement of training, etc. should more appropriately be made upon the licensees.

Also, we find it interesting that the Non-Destructive Testing Management Association (NDTMA), who originally filed the petition that NRC amend its regulations to provide for registration, licensing and control of individual radiographers, has withdrawn its petition and has published completely opposing opinions in their July, 1982 "NDTMA Speaks" newsletter.

QUESTION 5. If a third-party certification program is adopted, what items should be included in the standard for determining the competence of individuals to act as radiographers?

PPCo RESPONSE. We are opposed to third-party certification: no comment.

QUESTION 6. If a third-party certification program is adopted, should it apply to individuals presently working as radiographers or only to new radiographers?

PPCo RESPONSE. We are opposed to third-party certification: no comment.

QUESTION 7. If a third-party certification program is adopted, should certificates be issued to individuals for life or should there be periodic renewals of the certification?

PPCo RESPONSE. We are opposed to third-party certification: no comment.

POWER PIPING COMPANY

QUESTION 8. Would a third-party certification program affect the ability of a licensee to respond to variable manpower needs?

PPCo RESPONSE. Third-party certification would merely delay and restrict our manpower assignments because the scheduling of the training and certification would be dictated by the availability of the third party. We can control and schedule personnel better with our internal training program and we are better equipped to meet the needs with less cost and delay.

QUESTION 9. Since a third-party certification program would likely to be based on cost recovery by a fee system, would the cost to the licensees of such a program be warranted?

PPCo RESPONSE. No additional cost to our current radiation safety program would be warranted without some kind of cost recovery system. We see no proof that the additional cost will minimize overexposures at all.

QUESTION 10. Which alternatives of the two discussed (present system, third-party certification) is preferable? Why? Are there other better alternatives? If so, please explain.

PPCo RESPONSE. Under the present system, the NRC and Agreement State Inspectors make on-site inspections approximately annually. On previous occasions, an NRC inspector has interviewed our radiographers personally on subjects related to training, operation, etc. We encourage this type of inspection effort by the NRC and Agreement States and we perceive that this provides motivation for our radiographers to follow all the safety regulations. PPCo prefers the present system.

QUESTION 11. With respect to the two alternatives, what kind of enforcement action could and should be taken against radiographers who do not operate equipment safely or follow established procedures? What rights should radiographers have with respect to such enforcement actions?

PPCo RESPONSE. As regulations now stand, the NRC has no authority over the radiographer; only the licensee has options of disciplinary action (which PPCo is fully prepared to implement): third-party certification would remove even this.

QUESTION 12. Would a small licensee, because of its size bear a disproportionate adverse economic impact under a third-party system?

PPCo RESPONSE. PPCo is not willing to accept the economic impact of third-party certification. We are not "small" and can only assume that the economic impact to a small licensee would be greater than ours.

POWER PIPING COMPANY

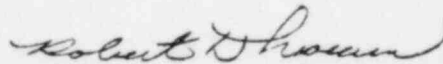
QUESTION 13. For those organizations that are interested in participating in a third-party certification program, what would be the estimated cost in implementing such a program?

PPCo RESPONSE. PPCo is opposed to third-party certification: no comment.

Conclusion

The responsibility of minimizing radiographic overexposures rests solely on the individual radiographer and the individual licensees with assistance from the NRC and Agreement States in order to enforce the existing regulations. Adding third-party certification would not minimize or reduce overexposures, but would add to cost and flexibility considerations.

Yours very truly,
POWER PIPING COMPANY



Robert D. Moran
Radiation Safety Officer

Colt Industries



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27 August 1982

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

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

Attn: Docketing and Service Branch

Re: Certification of Industrial Radiographers

Gentlemen:

The opportunities, both to speak at a public hearing and also to express my thoughts in writing are appreciated. These thoughts are my own and are based upon over fifteen years as a radiation safety officer observing our company and outside radiographers.

I am opposed to the certification of radiographers by a third-party. I do not believe that this will improve safety performance because it is not correcting the real problem. Furthermore, I believe that third-party certification (TPC) is an expensive smokescreen thrown up by the Nuclear Regulatory Commission and some NDTMA members to avoid facing up to the real problems.

On page 19152 of Federal Register, Volume 47, No. 86, Tuesday, May 4, 1982 is this statement:

"Investigations of overexposure incidents by NRC and Agreement State inspectors have also indicated that inadequate training of radiographers may be a significant contributing cause in many of the overexposure incidents."

The NRC inspectors I've met are certainly alot smarter than to believe this or else their ideas as to what "significant" means are different from that of most people.

Every NRC employee that I've asked the question "Do you know of any overexposure incident that occurred because the radiographer did not know better?" has answered (sometimes reluctantly but honestly), "No". If such be the case, outside training is not the answer! Further training is not going to cure carelessness, haste, lack of responsibility, poor supervision, etc.

All types of safety errors are really covered in less than two days training and we have to give 40 hours minimum plus refreshers.

I challenge the NRC to cite even one specific overexposure incident caused by inadequate training.

DS 10
add: James Jones
15650 NL

A division of the Colt Industries Operating Corp.
Acknowledged by card. 8/31/82 emp

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Page 2
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Overexposures are caused by individual radiographers doing a poor job, but not because of lack of training. Sometimes, it is compounded by inadequate supervision or management's pushing the radiographers to hurry a job, but fines would alleviate that.

Certifying that a radiographer is knowledgeable about safety won't guarantee that he'll do it right. If pride of workmanship or fear of harming himself or others will not make a radiographer work safely, then fear of punishment is the only recourse. This punishment should consist of temporary or permanent suspension from the right to be a radiographer. The length of suspension would be appropriate to the misdeed. It is not necessary to have a list of people who could be suspended, but only to keep a list of those suspended. This "Disqualified List" would be accessible to any employer contemplating hiring a radiographer candidate. This list would also give support to an employer wishing to discharge or reclassify an unsafe radiographer but facing union problems over it.

Admittedly this approach has problems to be ironed out such as who does the disqualifying, assurance the radiographer gets fair treatment, etc. This is the only practical way I know to improve radiographic safety.

How does one withdraw a Third Party Certification for having passed a series of written and/or practical tests? The radiographer's knowledge is still there even though he screwed up! Put the penalty where it belongs rather than create an expensive unwieldy system really not closely related to the problem.

The advocates of TPC have my sympathy because they must know in their hearts that they are ducking the issue and/or trying to profit from it unjustly.

Following are my comments on the 13 items:

1. Is the training provided to radiographers under the present system adequate?

Yes! The subject matter and time required by existing regulations are more than adequate. We follow the NRC Guidelines and our formal company policy because we have agreed to, but I firmly believe a radiographer could be given adequate safety training in less than two days. The problem is not in the quality of the training.

2. Would a third-party certification program reduce the number of overexposures in the radiography industry?

No! The problem is not that the errant radiographers don't know what to do, but that they don't do it. Certification is an expensive, unnecessary, time consuming, and bureaucratic approach to the problem. Because the problem is not inadequate training, certified adequate training does not meet the problem.

3. Would a third-party certification program motivate radiographers to work more safely?

No. Having passed a certification examination is no incentive to work safely. The radiographer needs to be motivated to work safely - if fear of radiation damage won't do it, then the motivation would have to be a blow to the pocketbook such as a fine, suspension from work, etc.

4. What elements in the present system or in the suggested alternative are particularly desirable or undesirable? Why?

Discussed in other answers.

5. If a third-party certification program is adopted, what items should be included in the standard for determining the competence of individuals to act as radiographers?

No need to have the cert program.

6. If a third-party certification program is adopted, should it apply to individuals presently working as radiographers or only to new radiographers?

If it were of any benefit, then it should apply to all radiographers.

7. If a third-party certification program is adopted, should certificates be issued to individuals for life or should there be periodic renewals of the certification?

Life. Why increase the already unnecessary expense!

8. Would a third-party certification program affect the ability of a licensee to respond to variable manpower needs?

Yes. There could be problems of scheduling a certifier.

9. Since a third-party certification program would likely to be based on cost recovery by a fee system, would the cost to the licensees of such a program be warranted?

No.

10. Which alternatives of the two discussed (present system, third-party certification) is preferable? Why? Are there other better alternatives? If so, please explain.

Present system is better. Third-party certification does not provide a cure for the problem. See #3 and early discussion for a possible addition to the present system.

Secretary of the Commission
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11. With respect to the two alternatives, what kind of enforcement action could and should be taken against radiographers who do not operate equipment safely or follow established procedures? What rights should radiographers have with respect to such enforcement actions?

See #3 for enforcement actions. The radiographers should have the right to appeal to a higher NRC board. The violations that would be punished, I suspect, are so flagrant that they wouldn't be appealed. The main purpose is provide a practical deterrent, so there should not be much need for punishment. If there is, a new approach must be found.

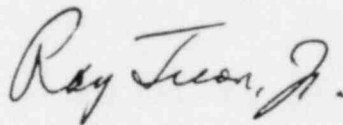
12. Would a small licensee, because of its size bear a disproportionate adverse economic impact under a third-party system?

Possibly. In any case, it is an unnecessary expense.

13. For those organizations that are interested in participating in a third-party certification program, what would be the estimated cost in implementing such a program?

Not applicable to us. I suspect that any third-party certification would be expensive with the certifier padding the instruction and testing in order to justify a large fee. If there is no large fee, then you'll have no certifiers.

Yours truly,



R. Treon, Jr.
Chief Metallurgist
and Radiation Safety Officer

MAGNAFLUX

Quality Services

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August 25, 1982

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

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

Attention: Docketing and Service Branch
Subject: Comments on proposed rulemaking 10 CFR Part 34
Certification of Industrial Radiographers 47 FR 19152
Published 5/4/82

Gentlemen:

Attached you will find our response on the proposed rulemaking 10 CFR Part 34 Certification of Industrial Radiographers.

We are pleased to have the opportunity to express our thoughts on this proposal. As you will note in reading our response, we definitely prefer the present system as opposed to the proposed system.

If further comments are required or clarification of the comments that have been made, please feel free to contact us.

Very truly yours,

MAGNAFLUX Quality Services

Hugh Y. Doran
Hugh Y. Doran, President

HVD/vg
Att.

DS10
add: James Jones
5650 NL

Acknowledged by card... 8/31/82... *emp*

August 25, 1982

Subject: Comments on Proposed Rulemaking 10 CFR Part 34
Certification of Industrial Radiographers 47 FR 19152
Published 5/4/82

This letter is in accordance with advanced notice of proposed rule-making of 10 CFR Part 34. The following are our comments to the thirteen questions published in the notice:

Question 1: Is the training provided to radiographers under the present system adequate?

Response: The training provided to our radiographers is adequate. Furthermore, the training required as stipulated in 10 CFR Part 34 provides for adequate training of all radiographers.

Question 2: Would a third party certification program reduce the number of overexposures in the radiography industry?

Response: Most of the overexposures occur when a radiographer fails to properly use a survey meter or when an assistant radiographer is permitted to operate as a radiographer. Both instances are a matter of management control. We do not see how a third party certification program would reduce the incidents of overexposures.

Question 3: Would a third party certification program motivate radiographers to work more safely?

Response: We do not believe third party certification will motivate radiographers to work more safely. Motivation is accomplished through an individual's attitude towards their job. There are tools to improve one's attitude and consequentially increase motivation. However, certification as a written testimony of qualifications, we do not feel will act as a motivator.

Question 4: What elements in the present system or in the suggested alternative are particularly desirable or undesirable? Why?

Response: The present system permits a company to certify radiographers when an individual has obtained required training (formal and OJT) to become certified. Conversely, the

alternative would only provide for certification on a periodic basis. Under the alternative system, an individual may not be able to obtain certification for some time after he/she is qualified to obtain certification. There appears to be a lack of cost/benefit reasoning in the new program. The proposed alternative system would increase the cost of radiographer certification with no apparent benefit.

Question 5: If a third party certification program is adopted, what items should be included in the standard for determining the competence of the individuals to act as radiographers?

Response: The standard should include minimum hours of classroom training received by an individual and minimum experience requirements as an assistant radiographer. The present requirements of 10 CFR Part 34 and the guidelines of regulatory guide 10.6 already provide a standard.

Question 6: If a third party certification program is adopted, should it apply to individuals presently working as radiographers or only to new radiographers?

Response: If a third party certification program is adopted it should apply to all radiographers. Certification as a standard, must apply to all radiographers. Although new radiographers may have not had adequate training, older radiographers with adequate training may have developed bad habits.

Question 7: If a third party certification program is adopted, should certificates be issued to individuals for life or should there be periodic renewals of the certification?

Response: Periodic renewals of the certification would be necessary due to changes in regulations and equipment. Also, an individual may be certified as a radiographer but only perform radiography on a limited basis. We recertify our radiographers every three years.

Question 8: Would a third party certification program affect the ability of a licensee to respond to variable manpower needs?

Response: Yes. An individual that has completed the training requirements and be eligible for certification, would not be certified until the next certification session is held.

Question 9: Since a third party certification program would likely be based on cost recovery by a fee system, would the cost to the licensees of such a program be warranted?

Response: The cost to the licensee would not be warranted. As was previously stated, there would be an increase in cost without benefit. Furthermore, a licensee would need to continue costly training of radiographers with third party certification prior to utilizing them as radiographers. This present practice of additional training is in the areas of equipment in use by a licensee, Operating and Emergency procedures, and applicable regulations in the state.

Question 10: Which alternatives of the two discussed (present system, third party certification) is preferable? Why? Are there other better alternatives? If so, please explain.

Response: The present system is definitely preferable. It allows for flexibility (within regulatory parameters) of a licensee to tailor fit a training and certification program to their specific needs and would allow the licensee to respond to variable manpower needs. The third party certification program would not rid the industry of licensees who presently continue to operate in noncompliance by allowing individuals with inadequate training to function as radiographers.

Question 11: With respect to the two alternatives, what kind of enforcement action could and should be taken against radiographers who do not operate equipment safely or follow established procedures? What rights should radiographers have with respect to such enforcement actions?

Response: Suspension or revocation of certification. Radiographers would then have the opportunity to receive retraining similar to driving licenses. Enforcement actions could be based on a point system relative to the severity and number of violations.

Question 12: Would a small licensee, because of its size bear a disproportionate adverse economic impact under a third party system?

Response: No, since the size of the operation would determine the number of people to be certified.

Question 13: No Comment.

In summary, the cost of the proposed system of third party certification would far exceed the benefit of the program. It is our contention that radiography incidents leading to personnel overexposures or other health and safety hazards are not primarily caused by inadequate training. Although some of the incidents may be caused by inadequate training, we feel that most of the incidents are caused by carelessness primarily on the part of the radiographer. The third party certification program that is contemplated through the proposed rulemaking (published 47 FR 19152) would not reduce the carelessness factor. The NRC has established required training guidelines that licensees must follow. But, the NRC has not placed any of the responsibility for the safe operation and utilization of radioactive materials on properly trained radiographers. Management may terminate a radiographer for unsafe acts, but only one licensee problem has been solved.

Reference checks by potential new employers would certainly prevent the hiring of unsuitable radiographers. Our industry is not that large that the reputation of a radiographer could not be found out with a little research.