



# OKLAHOMA STEEL CASTINGS COMPANY

A DIVISION OF MARMON INDUSTRIES, INC.

P.O. BOX 2709 • TULSA, OKLAHOMA 74101 918/585-9285

A MEMBER OF THE MARMON GROUP OF COMPANIES

USNRC

'82 OCT -8 P3



OFFICE OF SECRETARY  
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BRANCH

May 28, 1982

80

Nuclear Regulatory Commission  
Office of Nuclear Regulatory Research  
Washington, E.C. 20555

DOCKET NUMBER  
PROPOSED RULE

PR-34

(47 FR 19152)

ATTENTION: Mr. James A. Jones

Dear Mr. Jones:

We operate a radiograph facility with a limited license, i.e. we may only use our exposure devices in our vault and only NRC approved radiographers are permitted to work in the area. We have our own training program for our radiographers which covers only the type of facility we have here. We also send the radiographers to a school covering radiation safety.

We do not believe, in our case, that any benefit would be gained by having a requirement for third party certification. We have not had an incident of the nature you are trying to reduce. The reason, we feel, is that we have a good program and have control of the operation due to the type of facility we have.

To address some of the questions asked in the proposal we would answer as follows:

1. Is the training provided to radiographers under present system adequate? Yes
2. Would a third party certification program reduce the number of overexposures in the radiography industry? No, at least this is true in our case.
3. Would a third party certification program motivate radiographers to work more safely? No, this is more of a psychological problem and a control problem.
4. 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? How can this be determined, the industry covers many fields for which some radiographers need some knowledge and others do not require. A third party certification would have to be too general in order to be fair.
5. If a third party certification program is adopted, should it apply to individuals presently working as radiographers or only to a new radiographer? A grandfather clause would have to be required as there are radiographers who are very good at their jobs who very likely would not be able to pass a certification test and therefore, they would be put out of work.

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add: James Jones  
5650 NL

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MAY 28, 1982  
PAGE 2



6. Since a third party certification program would likely be based on cost recovery by a fee system, would the cost to the licensee be warranted? Depending on who is to do the certification, the cost would certainly have an impact as this would all be above the cost of our present training program, which would have to continue in order to cover our specific needs.
7. Which alternative of the two (present system, third party certification) is preferable? The present system is much better for us, it meets our needs. We provide the training needed to do our type of radiography and we meet the NRC requirements.
8. Would a small licensee, because of its size bear a disproportionate adverse economic impact under a third party system? It is not known what the cost would be as we do not know the third party, his costs, location, nor length of training required to pass a certification as yet. We do know that it would certainly raise our cost for whatever this expense might be.

We do not feel that we would have an improvement in our radiography program if this plan was enacted.

One possible recommendation we could offer is to have our local ASNT chapter offer training to radiographers covering the fields of radiation safety. There are several qualified personnel in the Oklahoma Chapter of ASNT who could offer such training.

Sincerely,

A handwritten signature in cursive script that reads 'James F. Hamilton'.

JAMES F. HAMILTON  
RADIATION SAFETY OFFICER  
OKLAHOMA STEEL CASTINGS COMPANY  
LICENSE NUMBER 35-14942-01



DOCKETED  
USNRC

# UNIVERSAL Technical Testing Laboratories, Inc.

'82 OCT -8 P3:35

Nondestructive and Physical  
Inspection for Industrial America

Woodlawn Avenue and North Street

Post Office Box 372, Collingdale, Pa. 19023  
OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

May 20, 1982

82

DOCKET NUMBER  
PROPOSED RULE PR-34

(47 FR 19152)

United States Nuclear Regulatory Commission  
Mr. Robert E. Alexander, Chief  
Occupational Radiation Protection Branch  
Office of Nuclear Regulatory Research  
Washington, DC 20555

RE: Your proposal for independent  
Certification of Industrial Radiographers

Gentlemen:

Although your intentions are honorable we believe that your solution to the problem is not complete. A cursory review of the records of radiation over-exposures in our industrial use of radiation will reveal that the majority of the over-exposures occurred because the radiographer suffered a mental lapse. Those radiographers forgot to do something that they normally did and certainly understood they had to do. The discovery of this lapse was invariably made at a later time by another radiographer.

If you want to reduce the number of over-exposures, we feel that the handling of radiographic devices should never be undertaken by a single individual but by two. Thus, the over-exposure has a far less chance of occurring since the person who catches the lapse later in the case of over-exposures catches it during its occurrence; before the over-exposure occurs.

We point to our own record of radiation incidences. We never send an individual into the field with a radiation source. We use two man teams only. We believe that the answer to the problem of the high rate of radiation over-exposure in our industry is to make two man teams mandatory.

Sincerely,

UNIVERSAL TECHNICAL TESTING LABS, INC.

Michael C. Modes  
Radiation Officer

MCM/pm

DS 10  
add: James Jones  
5650 NW

Jim Jones, RES 5650 N/L

NEW YORK OFFICE  
ONE BATTERY PARK PLAZA  
212-943-2397



# JACKSONVILLE SHIPYARDS, INC.

CABLE ADDRESS-JA XSHIPPING  
TELEX 5-6284

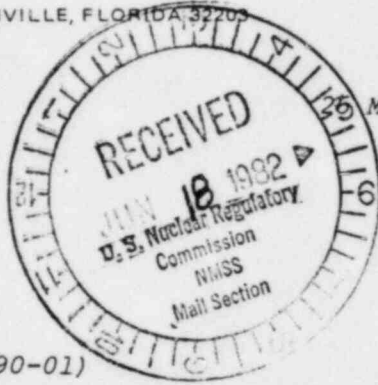
SUBSIDIARY OF FRUEHAUF CORPORATION

P.O. BOX 2347

JACKSONVILLE, FLORIDA 32203

(904) 355-1711

DOCKET NUMBER **84**  
PROPOSED RULE **PR-34**  
**(47 FR 19152)**



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USNRC

'82 OCT -8 P3:35

United States  
Nuclear Regulatory Commission  
Washington, D. C. 20555

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Re: NRC 10 CFR Part 34 (7590-01)

Subj: Proposed rulemaking on certification of industrial radiographers

Gentlemen:

The following comments concerning the desirability of establishing a third-party certification program for certifying industrial radiographers is respectfully submitted:

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

Yes, if the training is accomplished as required by and in accordance with 10 CFR Part 34 and the individual organizations properly monitor and police their operation.

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

It is doubtful. Third-party certification would only indicate the individual has passed an exam indicating familiarity with the general safety requirements for handling and use of radioactive sources. Examples are present certification of weld inspectors by American Welding Society and American Society of Nondestructive Testing. A number of persons having passed certification exams are totally unfamiliar with many individual organizations, operations and specifications.

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

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add: James Jones  
5650 N/L

Again this is doubtful because individuals react differently in cases of emergency, on tight production schedules and familiarizing themselves with an organization's operating and emergency procedures, accepting responsibility, etc.

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

Annual unannounced inspections by representatives of NRC and agreement states are highly desirable and in addition to record audits more time should be spent on review of training records and possibly an oral quiz of random radiographers from an organization on operating and emergency procedures, training received and, etc. This would keep Radiation Safety Officers and supervisors alert.

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

There is no alternative, 10 CFR Parts 19, 20, 34 agreement states rules and regulations and operating and emergency procedures for the particular organization for whom the radiographer is working. This certification should be valid only for the employer under which certified the same as Mil-Std 248 requires for welders.

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

Since 60% of the overexposures are presently caused by industrial radiographers to day, it must apply to present as well as future.

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

Renewal at not less than 3 years or more than 5 year periods.

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

Yes, probably for fly by night operations.

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

Cost recovery today for our radiographic operation is exorbitant. To agreement state and NRC our annual cost for unannounced inspections average \$1900.00, this is in addition to amendment and renewal costs.

The average seminar today costs \$595.00 per person so I am sure third-party agencies fees would be that as a minimum and expenses for food and lodging for an applicant would cost at least \$500.00 for five or six days in addition to travel costs. This means \$1200.00 to \$1500.00 per person taking the certification exam. Once it's mandatory, the third-party certification would probably exceed all other costs.

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

The present system is best. The organization that complies with the regulations and make compliance mandatory for radiographers are not involved in the majority of the overexposure cases.

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?

Hold an investigation and determine radiographer has received proper training is fully qualified and if so treat the case as a criminal case. Try, sentence, fine or whatever is justified.

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

Yes.

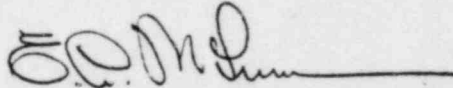
13. For those organizations that are interested in participating in a third-party certification program, what would be the estimated cost in implementing such a program?

U. S. Nuclear Regulatory Commission  
26 May 1982  
Page Four

Not interested, however as with all other third-party agencies, even the non-profit cost will be exorbitant.

There are adequate rules, regulations and guides to provide proper training for radiographers without the addition of third-party licensing organizations. How to enforce the rules and regulations is a problem for NRC and the agreement states. Assigning the responsibility to third-party licensing organizations is not the answer. Issuing a license to a radiographer will probably increase overexposure incidents because many organizations will assume the license relieves them of many safety responsibilities, their training programs will be cut down and some radiographers will become over confident. If third-party certification is approved the individual radiographer after licensing should be subject to punishment for violations of regulations for which they are responsible and not the organizations for whom they work as is done by the system today.

Very truly yours,



E. L. McInnis  
Mgr. Q. A. & Training



Maintenance Operations

RECEIVED DOCKETED  
USNRC

2082 OCT -8 P3:35

May 25, 1982

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

Mr. George S. Spencer  
Director - Division of Radiological  
Safety & Safeguards Programs  
United States Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596

83

DOCKET NUMBER PR-34  
PROPOSED RULE

(47 FR 19152)

SUBJECT: NRC 10CFR Part 34 Certification of Industrial Radiographers

Dear Mr. Spencer:

United Airlines strongly recommends that Radiography Licensee Certification remain (status Quo) under the present system for the following reasons:

The cost to train, license and maintain an adequate gamma-ray crew with a third-party licensing program would impose a heavy, unnecessary burden on United Airline's resources. It is estimated that this cost would be \$2,300 per radiographer on top of our present training program.

A study of radiographic accidents indicate that they are the result of irresponsible radiographers and lack of management discipline in their radiation safety programs. Radiographers failed to follow radiation safety procedures and some equipment has been used that allowed the source to become disconnected from the control cable.

A letter written by Mr. E. L. Thomas, Assistant Vice President of Engineering - ATA, to the Secretary of the United States Nuclear Regulatory Commission on September 28, 1978, explains very well United Airlines position upon third-party licensing of radiographers. Quotation is as follows:

"The scheduled airlines strongly object to the proposal made by the NDTMA. No evidence or proof is offered by the NDTMA to support their contention that registration and licensing of industrial radiographers will in fact reduce the already small incidence of exposure of personnel to radiation.

Continued

DS 10  
add: James Jones  
3650 NL



The key to radiation safety, as with any other kind of safety, is proper training and qualification of personnel and the exercise of effective management over these people. As you know, all users of radioisotopes for industrial radiography are now required to be licensed by the NRC or the appropriate authorities within agreement states. Such licensing also requires the proper training, qualification and management of radiographers.

In the case of U.S. scheduled airlines, radiographers are airmen licensed by the FAA as Airframe and Powerplant Mechanics or as Repairmen. In addition, the airline is required by FAR Part 121 to properly train and qualify such personnel and provide any manuals needed by these people to perform their duties.

The responsibility for radiographic operations including radiographer qualifications and conduct rests with the radiographer's licensed employer. Fulfillment of these responsibilities is now monitored by federal and state agencies. The licensee has a vested interest in demanding proper radiographer conduct and training.

As an employer, he also has the ability to levy financial penalty up to termination of employment for the types of negligent conduct presented in the petition. Therefore, the scheduled airlines believe that current NRC, FAA and state regulations already provide adequate control of radiographer conduct without the unnecessary burden of an additional overlay of licensing requirements.

The possible impact of the proposal is perhaps exemplified by United Airline's situation. United has 38 qualified radiographers covering a 24-hour, seven-day week operation. The financial impact of NRC licensing these inspectors would be economically prohibitive. United would have to provide time, material and administrative effort to put the proposed licensing process into effect.

The proposed rule change would be redundant and wasteful and would have no effect on the licensee's radiation safety responsibilities. Therefore, the proposed rule change should not be adopted." End of quotation.

United Airlines radiographers are also licensed aircraft inspectors that are entrusted with the signing of maintenance releases that insure the safe operation of our aircraft.

In summary, the present system is working very well for United. We have the administrative control, trained personnel and an excellent radiation safety record that speaks well for the present program. We object very strongly to the third-party program with its additional expense being imposed upon us just because of the irrespon-

Continued

G. S. Spencer

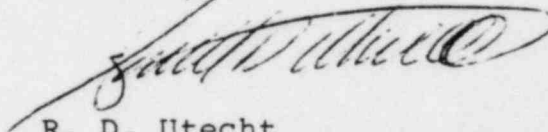
- 3 -

May 25, 1982

sible acts of a few individuals in the industry.

See attached questions and answers sheet for comments and details.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. D. Utecht". The signature is written in dark ink and is positioned above the typed name.

R. D. Utecht  
Manager,  
Non-Destructive Testing  
& Aircraft Inspection

Attachment

ANPR ISSUES

QUESTION #1

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

Answer: Yes, United Airlines radiation safety record speaks for itself. We are required in our license to submit our training program with administrative responsibility and control for approval before engaging in gamma-ray radiography.

QUESTION #2

Would a NRC licensing or third-party certification program reduce the number of overexposures in the radiography industry?

Answer: Not necessarily. Accidents are the result of irresponsible acts - not following procedure and prescribed rules and lack of management discipline and control in radiation safety programs.

QUESTION #3

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

Answer: No. People fail because of lack of responsible discipline. Management administrative discipline and control is necessary even with trained personnel. Radiographers are no exception.

QUESTION #4

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

Answer: Nothing in the third-party alternative is desirable to United Airlines. Such a program would not add benefit to our operation. Present licensing program puts the responsibility with and on the licensee where it should be and not with additional governmental control.

QUESTION #5

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

Answer: Individuals must be physically and mentally capable. He must have a good understanding of the nature of radiation, radiation safety and pass a written oral examination relative to the nature of radiation and radiation safety.

QUESTION #6

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

Answer: No. Grandfather rights should be exercised by radiographers presently engaged in radiography.

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.

Answer: They should be issued for life and remain current as long as the person is active in a 6 month period - otherwise, a refresher would be required as is presently done in our present radiation safety program.

QUESTION #8

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

Answer: Yes. Increased costs to training and certification would result in fewer persons being trained. It would be difficult for us to respond to our 24 hour a day, seven day week operational needs.

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?

Answer: No! The proposed program is out of step with present government direction, i.e. less government control and more responsibility placed upon business management. Such a program will only increase operating costs with no tangible benefit to United Airlines.

QUESTION #10

Which alternatives of the two discussed (present system or third-party certification) is preferable?

Answer: The present system is working very well for us. We have the administrative control, trained personnel and an excellent radiation safety program. Our radiation safety record speaks well for the present program. We object very strongly to having a third-party program - with the additional expense

QUESTION #10 (Continued)

imposed upon us just because of the irresponsible acts of a few individual in the industry.

QUESTION #11

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

Answer: Radiographers who do not comply with established safety and operating procedures should be removed from service and disciplined. If the individual is a licensee, he should have his license suspended or revoked until such time that he can demonstrate to the satisfaction of the licensing agency that he can operate in a safe responsible way.

Radiographers involved in accidents should have right to a fair hearing or investigation and right to appeal.

QUESTION #12

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

Answer: No. It may be less costly for him since he may already be using a third-party for his radiographer training.

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?

Answer: To develop a PR program to administer and oversee with our present training program is estimated to be approximately \$50,000.



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USNRC

'82 OCT -8 P3:35

May 28, 1982

OFFICE OF SECRETARY  
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85

DOCKET NUMBER PR-34  
PROPOSED RULE (49 FR 19152)

Robert E. Alexander, Chief  
Occupational Radiation Protection Branch  
Office of Nuclear Regulatory Research  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

Subject: Certification of Industrial Radiographers

Gentlemen:

In response to your solicitation for comments on the certification of Industrial Radiographers, it is Stearns-Roger (Manufacturing and Construction Division Licensee's) position that a Certification Program for Industrial Radiographers by a third party would serve no useful purpose, would add to the total cost of a program and would not achieve its purpose to reduce industrial radiation accidents.

The following is Stearns-Roger response to the questionnaire.

1. Is the training provided to radiographers under the present system adequate?
  - A. Yes, Stearns-Roger and other Licensee's have excellent documented Radiation Training and Certification Programs. The programs are in accordance with the established regulations, approved and audited by either NRC or the agreement State.
2. Would a third party certification program reduce the number of overexposures in the radiography industry?
  - A. No. Overexposures are not reduced by Certification alone. Overexposures may be reduced by an excellent training program for Radiographers and Radiographers Assistants with proper auditing by the Licensee and Regulatory Agency.
3. Would a third party certification program motivate radiographers to work more safely?
  - A. No, without sufficient supervision and regular audits of individuals work performance, a third party program would still be ineffective.

DS 10  
add: James Tong  
5650 NL

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

A. In the present system the Licensee has direct control over the Training and Certification of Radiographers and implementation of the Program.

In the proposed Third-Party Program, the Licensee would lose this control and the Radiographer would hold a Certification that the licensee may or may not be able to revoke.

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?

A. In addition to the written examination a thorough practical examination in the use of X- and Gamma Ray equipment, safety equipment and emergency procedures.

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

A. If the intent of the program is to be followed, it should be for all radiographers, present and new without a Grandfather Clause.

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?

A. No, not for life. Renewal with a stringent refresher course and re-certification.

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

A. Yes, with the greater need for radiographers the present availability of certified people would be limited and the time factor required to send individuals to a third party would be prohibitive.

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?

A. No, due to the high turn around normally incurred in field radiography the expense incurred by the Licensee could be very extensive.

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

A. Present System - it is much more efficient and viable. With a sufficient audit and inspection system by the Licensee, State and/or NRC, a workable and efficient system can be established. Within a Third Party Program or the present system, the final responsibility lies with the Licensee. It is the Licensee's responsibility to insure that their radiographers follow an established radiation safety program and this is done only by adequate supervision and auditing.

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?

A. A penalty/fine system (i.e., 10 CFR 21) should be established for both Licensee's and Radiographer's with possible termination of the Radiographer.

In addition, NRC should establish a Radiographer List. Each time a radiographer has an accident or overexposure that person would be reported and shown on the list with the pertinent information regarding the accident or overexposure. This information would be readily available to the Licensee for hiring Radiographers.

The Radiographer should have the right to repeal the allegation.

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

A. Yes, but this should not be taken in consideration in regard to safety.

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?

A. Stearns-Roger has taken the position that a Third-Party Certification Program is not feasible or workable, therefore decline to comment on costs.

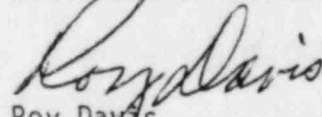
In conclusion, it is Stearns-Roger opinion that a Third-Party Certification Program would serve no useful purpose in reducing overexposures and radiation accidents. At the present time, the Licnesee has one audit a year by the



Regulatory Agency. This audit is primarily a paper function. It is the opinion of Stearns-Roger that if the present regulation imposed on the Licensee would be enforced with meaningful audits by the Regulatory Agency (i.e., Audits of a Licensee's Radiographer(s)) overexposure and radiation accidents could be greatly reduced.

Very truly yours,

STEARNS-ROGER MANUFACTURERS INC.

  
Roy Davis  
Corporate Radiation  
Protection Officer

RD:lk

cc: W.L. Storer  
W.H. Brinkman  
K.C. Stephens  
J.M. Kumler  
D. Werske  
W. Yeager  
N. Rohach