

Grinnell

CORPORATION

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(59FR 9429)

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TECHNICAL SERVICES

OFFICE OF SECRETARY
DEPARTMENT OF ENERGY

June 4, 1993

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Mr. Don Nellis
United States Nuclear Regulatory Commission
Washington, DC 20555
Main Stop-NL-S-139

Re: Two Man Crew Requirements

Gentlemen,

After a review of recent NMSS license newsletters and NRC bulletins, our concerns for a mandatory two man crew requirement has escalated. We feel that violations found could be eliminated if two technicians were on a project.

Our major concern is controlling and surveying the restricted area. Through past experiences, we have found it is virtually impossible to survey the restricted area and have complete control and vision of the source utilizing one man. Since the radiographic testing business is very competitive, we have lost numerous projects to other companies who are utilizing one technician.

As we all realize, in certain field projects such as pipelines and power plants, it is virtually impossible to abide by NRC regulations utilizing one radiographer.

Through our past experiences with your office, and our on-going Radiation Safety Program, we feel that Grinnell Corporation has set an example for other companies as a safety oriented organization.

Enclosed is a copy of a speech presented at ASNT's 1993 Spring Conference in Nashville, TN on April 2, 1993.

This effort by Grinnell is our on-going commitment to radiation safety, IRRSP and a mandatory two man crew requirement.

We feel that the companies that are operating with one technician in order to be competitive, are a definite radiation safety problem in the industry.

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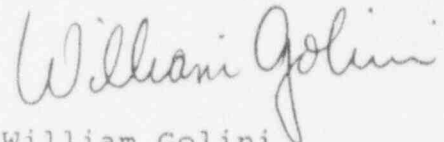
At your convenience, we would appreciate a meeting with yourself and your staff to discuss this apparent problem. We are willing to travel to your office anytime in the near future.

We hope to hear from you on this matter in the near future.

Thank you for your time and consideration regarding the enclosed.

Very truly yours,

GRINNELL CORPORATION



William Golini
Radiation Safety Officer

WG:dad

Enclosure

cc: G. T. Mulvaney
Mary Thomas/NRC Washington
Charles McMann/State of R.I., 206 Cannon Bldg.,
75 Davis St., Providence, RI 02908

Central Certification For Radiographers,
Is It Required?

By definition, a radiographer is a person who uses ionizing radiation such as gamma rays or x-rays to make radiographs. The primary purpose for utilizing this technique is to detect flaws in objects without destroying them. At the same time, a permanent record is obtained. What this definition does not address is the potential magnitude of personal injury that individuals could be encountered with misuse.

Radiographers are working and operating equipment with impeccable safety records and quality. "If the equipment is manufactured to the highest quality standard, then why should radiographers be centrally certified?" This question has been asked throughout the industry with numerous answers involving pros and cons on central certification.

A second issue and comment that is commonly made is, "Why should additional money be spent if central certification isn't required?" This leads to the first question involving the need for central certification.

As a Radiation Safety Officer and a radiographer, the answer to this question could be summed up in one word; "SAFETY". Being directly involved in radiographic operations, as I am sure many of you are, we can all agree that operation of radiographic equipment can be taught to an individual in a short period of time. What is absent is the actual experience, training and numerous circumstances a radiographer can encounter during a radiographic operation.

Central certification encompasses a stringent pre-requisite program for all applicants which includes;

- o forty hours of formal classroom training in radiation safety.
- o hands-on experience involving 520 hours for isotope certification.
- o 350 hours of experience for x-ray certification.

All of the pre-requisite requirements must be compiled under the control of a license granted by state or Nuclear Regulatory Commission (NRC) authority. Many organizations performing industrial radiography have certification programs comparable or even greater than the Industrial Radiography Radiation Safety Program (IRRSP) pre-requisites.

The question that arises is how effective and efficient are the programs that are utilized and practiced. By submitting all required documentation to American Society for Nondestructive Testing (ASNT) prior to IRRSP examination, many important questions can be answered, such as:

- o Was all applicable safety training performed?
- o Was the formal training performed by a individual knowledgeable in all State & NRC rules and regulations?
- o Did the individual performing the required training have valuable hands-on field experience to pass on to all attending individuals? Basically, was it "line drive" or primarily theoretical in nature.
- o How was the required "hands-on" experience obtained?
- o What type of equipment was utilized by the instructor in gaining his experience? Where and when was experience validated?
- o Was there any outstanding problems that occurred during the practical examination?

If answers can be provided to the above questions then it is likely that the organization has an effective program in place.

The IRRSP certification program allows companies and individuals to take a closer look at their program to see if the program is effective, efficient and above all else meaningful to the trainee. If the program lacks effectiveness and central certification is mandatory, companies and individuals will have to arrange their priorities regarding radiation safety training and their overall radiographic operation.

Part 34.11 (5) does give the option to licensees to substitute ASNT-IRRSP certification in lieu of the described means to determine a radiographer's knowledge and understanding. This is effective from April 18, 1991 to the date of renewal of an existing license.

This option does not affect the license's responsibility to assure that radiographers are properly trained but what it does describe is that the NRC has accepted ASNT review of all required training and experience for individuals seeking certification in accordance with IRRSP. Obviously there is not a program in existence that is foolproof.

What Central Certification will provide is a means of confidence to employers and their customers that all personnel involved in radiographic operations are trained and certified to the highest level possible. The on-going training is the responsibility of all employers and must be followed through on an on-going basis.

By being centrally certified, a written allegation could be generated by a complainant to ASNT. This tracking method is an excellent program to eliminate unsafe personnel who perceive that safety is not a priority. Presently there are no systems for unsafe radiographic personnel. As we all know, state and NRC offices are understaffed and a resolution of a complaint could be a long and painstaking process. By having ASNT directly involved with the IRRSP program, we can be sure that all complaints will be investigated thoroughly and as quickly as possible.

As an advocate of central certification, I have along with my employer, offered our assistance to the Nuclear Regulatory Commission, ASNT and other laboratories regarding the IRRSP program. IRRSP combined with a two man crew requirement would guarantee that all radiographic personnel are among the safest and highly trained individuals in their field.

In closing, what everyone needs to understand is that when sealed sources are handled by individuals who disregard radiation safety procedures and have not been properly and effectively trained, significant exposures could be obtained by radiographic personnel and the general public. The consequences of an improperly trained and certified radiographer could be catastrophic.

By central certification through the Industrial Radiography Radiation Safety Program, we can assure that all certified personnel will have all required training and experience to perform to the highest safety standards possible.

Radiography is a very competitive venture and the cost associated are extremely escalated.

Since a two man crew is not mandatory as of yet, there are certain situations involving field radiography that constitute a potential safety problem when inexperienced personnel are not available.

In order to be competitive, many companies are operating in field applications with a one man crew. What central certification will provide is a highly experienced individual performing on their own with all the applicable training and experience required. An assurance that the radiographers' and the general public's safety will be of the highest priority would be apparent to all.

On-Site Program



ASNT's 1993 Spring Conference and Second Annual Research Symposium

March 29-April 2

Opryland Hotel, Nashville, TN

"NDE: The Successful Note of Quality and Design"

and

"NDE for Process Understanding,
Sensing and Control"

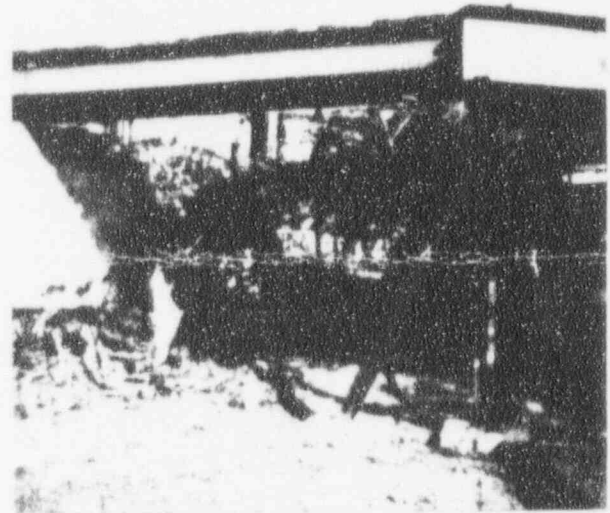
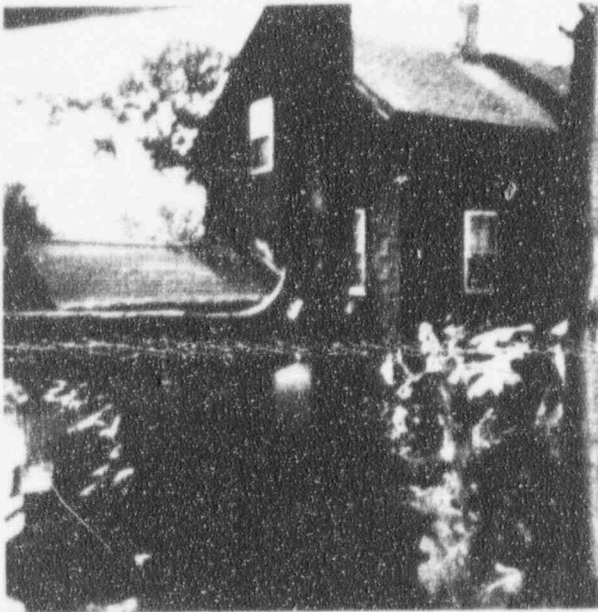
- **Welcome Party and Tabletop Exhibits**
- **Professional Program Tracks & Research Symposium Sessions**
- **Conference Keynote Address: "Increased Productivity Through Improvements In Process Sensing and Control"**
- **Post-Conference Seminar: "Industrial Radiation Safety"**
- **Magnetic Particle one-day symposium**
- **Short Courses: Total Quality Management; ISO 9000; Optical Fiber Sensors for NDE; Intergranular Stress Corrosion Cracking**
- **ASNT Town Meeting: "ASNT Reorganization to Meet the Members' Needs for the Year 2000 and Beyond"**
- **Education Forum**
- **"Member Voice of the Future" Forum**
- **"Journey Into the Future" Membership Reception - Free Admission**
- **Leadership Basics Seminar - Free Admission**



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DOES THE INDUSTRY NEED IRRSP AND A
MANDATORY TWO MAN CREW?



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