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OFFICE OF SECRETARY  
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Secretary  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

DOCKET NUMBER  
PROPOSED RULE PR34150  
(59FR9429)

Attention: Docketing and Service Branch

Subject: Proposed Rule, Part 34, Licenses for Radiography and Radiation Safety  
Requirements for Radiographic Operations

Gentlemen:

The Westinghouse Electric Corporation appreciates the opportunity to provide comments on the proposed rulemaking changes to Part 34. Westinghouse supports the Commission's effort to bring it's regulations into concurrence with current agreement state regulations.

The attached comments are presented for consideration by the Commission in this rulemaking proceeding.

Sincerely,

A. T. Sabo, Manager  
Regulatory Affairs

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Attachment

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**COMMENTS ON PROPOSED RULE CHANGES TO PART 34,  
LICENSES FOR RADIOGRAPHY AND RADIATION SAFETY  
REQUIREMENTS FOR RADIOGRAPHIC OPERATIONS**

General Comments

Westinghouse supports the Commission's effort to update its regulations to achieve standardized regulatory requirements with Agreement States. Westinghouse does not support the Commission's effort to require a two-person crew at all temporary job sites. Radiographic operations conducted within a facility that is licensed to meet current 10CFR34 requirements should not be mandated to provide a two-person crew for radiographic jobs at temporary jobsites. The issue of adequate surveillance within a plant facility is not the same as jobsite operations being conducted in remote outdoor locations. The requirement for two-person crews for all operations outside of permanent radiographic installations within a plant facility is not necessary to provide appropriate surveillance of the jobsite.

Specific Comments

**Part 34.25 (a) Radiation survey instruments.**

*".....Survey instruments must be checked for operability before use each day. This may be accomplished by evaluating the instrument response to the previously measured fields at the projection sheath port or the control cable sheath port on a radiographic exposure device"*

Comment:

The requirement to check a survey instrument for operability prior to utilization each day is good radiological practice that ensures the health and safety of all personnel. Exception is taken with the second portion of this requirement that suggests the check be accomplished using exposure from a source device. This method will not always produce results that would demonstrate the proper functioning of the survey instrument. Licensees who infrequently use short half life sources would have to determine if the low reading is due to the decay of the source or a potentially malfunctioning meter. This proposed method of checking the instrumentation may require the radiographer to enter a source storage area with a survey instrument that has not yet been shown to be operating properly. It is suggested that the second sentence shown above be replaced with *"This should be accomplished utilizing a check source"*. This standard health physics practice would ensure the proper functioning of the survey equipment and not permit a radiographer the option of using a radiography source as the check source.

**Part 34.33 (b) Permanent radiographic installations**

*"The alarm system must be tested for proper operation at the beginning of each day the installation is used for radiographic operations. The test must include a check of the visible and audible signal by turning on the exposure device before using the room. Entrance control devices must be tested monthly...."*

Comment:

The statement "turning on the exposure device" suggests that the source itself be utilized to activate the alarms for daily checks. In order to check the response of the audible alarms the operator must open the exposure room door with the source exposed. Depending on the location of the door, this may be a potentially dangerous action that should be avoided. Part 34 should suggest the use of a small check source to test the alarm or relocation of the monitor probe, if portable, near the exposure device. Either of these methods could provide an adequate radiation level to activate the alarms and

permit testing of the alarm systems in a safe manner. Paragraph 34.33 (b) should provide alternative methods of activating the alarm system other than "turning on the exposure device". Suggested modifications may read "...The test must include a check of the visible and audible signal by activating the monitor system utilizing a radiation source sufficient for detection."

Clarification is required on the type of testing required for the monthly entrance control device. This statement appears to duplicate the daily checks of the visible and audible signals since opening of the exposure room door produces an audible signal which also acts as an entrance control device. Documentation of a monthly check is repetitive.

**Part 34.41 (a) "Conducting Radiographic Operations"**

*"Whenever radiography is performed at a location other than a permanent radiographic installation, the radiographer must be accompanied by at least one other qualified radiographer or an individual who has at minimum met the requirements of 34.43(b)..."*

**Comment:**

This requirement places undue burdensome requirements on many facilities. Radiography performed outside of a permanent facility is not always performed at a remote site. Quite often this temporary site is within a factory. Part 34 should provide allowances for such temporary radiography job locations. The presence of a second radiographer should not be required if access control to the area can be accomplished by direct observation by one radiographer and/or utilization of locked access ways under the control of the Radiographer.

A second issue was the concern that a radiographer could receive an overexposure if they became incapacitated in a radiation area and were unable to leave the area without assistance. Between the years of 1971 and 1980 the NRC training manual lists no cases of overexposure to an individual where the principle cause was the radiographer becoming incapacitated in a radiation area and required rescue. Although remote work sites do remain a concern and may utilize two radiographers for safety, a different situation exists at a factory location. Radiographers in a factory are continually within the visible scope of other employees who could summon help if required, thus making the requirement for a secondary radiographer unnecessary.

**Part 34.43 (a)(2) Training and Appendix A to Part 34 - Radiographic Certification**

*"...Is certified through a radiographer certification program by a certifying entity in accordance with the criteria specified in Appendix A of this part..."*

**Comment:**

The use of a third party certifying agency to test radiographic personnel adds little value to the safe operation of radiographic programs. Permanent radiography facilities that are a subsection of a set manufacturing process maintain a stable work force of radiographers. Training is provided from appropriately qualified engineers regarding radiography use and safe practices, while overall radiation safety training is supplemented by the on site Health Physics staff. The training focuses on the specific radiographic operations and equipment located at the facility thus providing the optimal training material to maintain safe operations. Utilization of a third party to provide the testing for such required training may be detrimental to the overall quality of a training program. The NRC should provide the option for permanent radiography facilities to provide their own radiography and radiation protection testing for the site specific training provided.

Clear definition of required qualification requirements for Radiographers certification should be defined thereby allowing permanent facilities to not only provide their own training, classroom and practical, but also to issue their own test which would verify certification. The NRC should either permit licensee to give their own tests which meet the defined criteria or issue a standardized test to be

proctored on site to the appropriate personnel. Permitting testing of radiographers on site using a standardized exam would result in significant costs savings. It is cheaper to send tests and test results via the U.S. Postal service than it is a radiographer.

**Part 34.42 (a)(1)(2) Radiation Safety Officer**

*"The RSO's qualifications must include: (1) Completion of the training and testing requirements of 34.43 (a) and (2) 2000 hours of documented experience in industrial radiographic operations, with at least 40 hours of formal classroom training with respect to the establishment and maintenance of a radiation protection program.*

**Comments:**

The NRC proposed requirements for an RSO for radiography programs including special certification by an independent organization should be rejected. Large organizations with a broad scope radiological program already have this experience inhouse. If special RSO requirements are required for remote site radiographic operations, these special requirements should be included in specific licenses issued for radiographic programs. The NRC should not mandate that only one individual within an organization have these total responsibilities.

In reality, a variety of individuals provide continuing input into a successful radiography program. At a permanent radiography facility a designed number of individuals are specifically trained as radiographers. These individuals meet the requirements of the training and testing of section 34.43(a) and have documented experience in industrial radiographic operations plus annual classroom training. Trained and experienced engineers provide continuing oversight and direction to the radiographers regarding actual operation, training, update on equipment as well as general radiation protection practices. Radiation protection oversight is provided by the site Radiation Safety Officer who has both experience and educational credentials and focuses attention on radiation protection practices with regard to radiography. The combined skills, experience, training and education of all individuals results in a successful and safe radiography program. The regulations imply that the RSO must maintain all required skills ranging from radiographer to college degree Health Physicist. This broad range of knowledge and responsibility is not always plausible nor beneficial. Separation of the various tasks between individuals in a permanent established facility permit each responsible individual to develop their skills which combined result in a successful program.

The NRC should modify their requirements for an RSO to permit fulfillment of the qualifications by more than one individual. It is not necessary that one individual possess all the listed and justifiable qualifications. Clarification should be made that the qualifications currently defined as those required by the RSO be represented in the organization which performs the Radiography. Distribution of the responsibilities among designated individuals should be an acceptable alternative to the currently proposed qualifications for an RSO.

Section 34.42 should be entitled "Personnel Qualifications" and should read "Radiography activities shall be performed in accordance with approved procedure and regulatory requirements in the daily operations of the licensee's program. Properly qualified individuals shall ensure that all aspects of radiation safety are being adhered to. (a) Individuals assigned responsibility for radiographic operations qualifications must include: ...". Wording such as this permits the licensee to distribute the responsibilities among properly qualified individuals rather than focusing all training and control on one individual designated as the RSO.

**Part 34.47 (g)(3) Personnel monitoring**

*"Be adequate to alert the individual regardless of the environmental conditions (e.g. high ambient noise levels)..."*

Comments:

Many sites do not need specialized alarming rate meters since noise levels are not an issue. The statement should include the words "if deemed necessary" and eliminate the word "regardless" to permit radiation protection personnel the privilege of determining if special alarm rate meters are required. Not all work locations have high ambient noise levels, thus purchase of new rate meters would unnecessarily cause some licensees additional costs.