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OFFICE OF THE
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BRANCH

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

Attention: Docketing and Service Branch

Subject: 10 CFR Part 34 Safety Requirements
for Industrial Radiography Equipment

Gentlemen:

I would like to thank you for the opportunity to comment on the proposed changes to 10 CFR Part 34. As an active radiographer, I would appreciate your considering my following comments and suggestions.

First, I would like to address the proposed amendments to Section 34.20 on the proposed changes to the exposure device. I believe they cannot but help make them safer. Any changes that will reduce malfunctions in the field would be received enthusiastically.

A standard coupling between the crank and pigtail should be considered. At the present time, each manufacturer has their own design. If one type, whichever was deemed the safest (such as a ball and socket design) was made mandatory, all personnel could be trained in a uniform manner on the proper way to connect and disconnect a source. This would ensure that all licensees will be doing it in the same way. Also, by having just one type, the safest means of coupling could be utilized on all cameras. While standardizing the coupling, the threaded male and female connection, crank to camera lock, could also be standardized. At present, there is a difference between certain manufacturers which does not allow interchangeability. I believe, all components on cameras should be interchangeable no matter who the manufacturer is.

On the subject of a visible source position indicator, I believe that all new cameras should incorporate this with the full understanding that this is strictly a guide. The indicator along with a positive lock

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Secretary
Page 2
April 20, 1988

upon return should have been made mandatory a long time ago. The unsafest cameras ever made were those that did not have the positive lock. They should be replaced immediately. Cameras without indicators, but with a positive lock mechanism, should be grandfathered until replaced. These cameras should have a lock that pops up upon back pressure to signify that the source is in the unlocked position and that must be reset upon retrieval of the source.

The proposed admendment to 34.33 requiring radiographers and assistant radiographers to wear pocket alarm dosimeters to limit the amount of overexposures does not address the real problem. The main reason for overexposures is the failure to follow approved safety rules. Radiographers and assistant radiographers, properly trained, following prescribed safety rules and practices should not be overexposed. Even equipment failure is not an adequate reason for overexposure. A radiographer with an inoperable survey meter should take notice well before an overexposure and take the appropriate actions to ensure the safety of himself and the general public.

By requiring alarm dosimeters, the improperly trained and unsafe radiographer will have just one more crutch to fall back on. They will come to rely on them as opposed to the one item that will prevent overexposures, survey meters. If a malfunction were to occur, would they know what to do? Some, I'm afraid, would not. Prior experience with alarm dosimeters at nuclear installations tells me that they will be mistreated and will malfunction.

If the case arises that the radiographer's hands are full and he either cannot carry or cannot see his survey meter, then it should be required that an assistant accompany him on those jobs. Also, there are survey meters that have audible alarms and belt clips so this is not a valid excuse in my opinion. The responsible radiographer should never allow himself to be put in an unsafe situation. Too many companies send one person on a two-person job to increase the profit margin. This is where the commission should step in and require two-man teams as the minimum. This would also help eliminate fatigue and accidents as a cause of over exposures.

Also, the Commission should change 34.43 to require a survey meter for each person involved and a backup on all jobs. At present, there is no provision for this and yet it is one of the best means of preventing overexposures. In case of malfunction, this way there would always be an operative meter to turn to.



Secretary
Page 3
April 20, 1988

In conclusion, as much as I agree with your changes, I believe none of these will eliminate overexposures. The only effective means is adequate training and conscientious radiographers. Nothing must supplant doing the proper surveys. Put teeth into the rule requiring proper safety training. Make the unsafe radiographer too great of a liability for companies to bear. Also, make the companies pay the price for codoning unsafe practices, such as the penalty imposed upon U.S. Testing. Make two-man teams mandatory industry wide. Make backup survey meters mandatory on all jobs. Malfunctions and accidents will continue to happen but the safe radiographer will always have total control of the situation and never allow it to escalate to the point of an overexposure to anyone.

Thank you again for allowing me the opportunity to express my views on the proposed changes.

Very Truly Yours,

A handwritten signature in cursive script, reading "Albert J. Dilts". The ink is dark and the signature is fluid.

Albert J. Dilts
Facility Safety Officer/RSM

MQS Inspection, Inc
Hartford, Ct