



# H & G INSPECTION COMPANY, INC.

P.O. BOX 721856 • 713-498-6517

HOUSTON, TEXAS 77272

DOCKETED  
USNRC

47

July 18, 1994

DOCKET NUMBER  
PROPOSED RULE **PR 342150**  
**(59FR9429)**

'94 JUL 27 AM 30

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

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

To Whom It May Concern:

H&G Inspection Company, Inc. is an industrial radiography company (NRC radioactive materials license # 42-268-38-01) based in Houston, Texas. According to state and federal regulations, our radiographers are required to carry with them alarming rate meters at all times when radiography is being performed.

When they are operating properly and used in conjunction with a survey meter, these rate alarms provide additional safety. They can, however, become a hazard when they are not operating properly. It has been the experience of H&G Inspection that these meters have a tendency to fail repeatedly, either to weak batteries or an internal problem with the device. The "sound check" trigger on the meter may still work, as will the warbling sound emitted from the device, yet it still will not sound off even when placed directly next to a cranked out source.

This disturbing lack of function becomes even a greater threat when a radiographer disregards safety procedures and relies solely on the rate alarm for warning of an intense radiation field, rather than making a correct camera survey with a survey meter. Because all other indications may tell the radiographer that the rate alarm is working, he/she may never know that an overexposure occurred. Often, it is even impossible to get verification that the rate meter is functioning when the source is cranked out, because to trigger the alarm at the meter's set dose rate point (500 mr/hr), a 53 Curie Ir-192 source would be required for a 25 foot crankout, and a 104 Curie source would be needed for a 35 foot crankout. Most sources that we use are weaker than that.

Because of this problem, our radiographers are now forced to make periodic additional exposures just to test the function of their rate alarms when out in the field. We feel that these extra exposures disregard the ALARA principle, and something should be done to alleviate the problem. It has been suggested that by implementing a high/low switch on the rate meter, it would be possible to check the meter's function by simply placing the rate alarm near the camera while the source was still in its shielded position. Whether this is a viable option remains to be seen, but it was simply H&G Inspection's intent to inform you of the possible danger.

Yours Truly,

Harry W. Gibson  
Radiation Safety Officer

9408080030 940718  
PDR PR  
34 59FR9429 PDR

Evanston, Wyoming  
307-789-0804

10510