



Professional Service Industries, Inc.
Corporate Office

November 30, 1990

U.S. Nuclear Regulatory Commission
Director, Office of Enforcement
Washington, D.C. 20555

REPLY TO NOTICE OF VIOLATION

Attention: Document Control Desk

Re: License No. 37-00276-25
Docket No. 030-05985
Inspection Report No. 88-02

Gentlemen:

Professional Service Industries, Inc. (PSI) is in receipt of the Notice of Violation dated October 30, 1990, regarding violations cited as a result of an inspection of the PSI facility in Sharon Hill and project site in Phoenixville, Pennsylvania, on 10/4/88. The following is submitted in response:

- Item I.A.1. It appears the "Internal Radiation Safety Performance Audit" (Form RR-19) performed by PSI on 2/5/88, 4/15/88, 4/29/88, 7/14/88 (2), 1/13/89 and 9/12/89 (2) may not have been performed as indicated, based on the discrepancy in the time and location of the audits and the whereabouts of the Assistant Radiation Safety Officer (ARSO). While it appears the audits may not have been performed as recorded, PSI was not provided a copy of the full Office of Inspection report, and therefore can not dispute or confirm the conclusions made by NRC investigators. In light of this fact, PSI has no option but to acknowledge the violation.
- I.A.2. The ARSO, by his own admission, has indicated the audit performed on 5/3/89 was, in part, completed without visually observing the radiographer. The violation is acknowledged.
- I.B. The training record(s) in question indicate that 2 hours of training in maintenance procedures were provided to a radiographer by the ARSO on Sunday, 10/2/88. Payroll records for that period indicate the trained individual was not paid for any hours of work on 10/2/88. Payroll records indicate the ARSO was paid for five (5) hours on 10/2/88.

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- I.B. *(continued)* While this information does not rule out the possibility that the training was indeed provided, it does appear that the individual may not have received the two hours of documented instruction. The violation is acknowledged.
- I.C. It appears the information provided to the NRC investigator by the ARSO, during the 1/3/90 interview may not have been accurate. While the ARSO stated that the quarterly audits of radiographic personnel and training referenced in Items I.C.1 and I.C.2 were performed as stated, PSI received no evidence to dispute or confirm the violation. In light of this fact, and the fact that the ARSO admits that, on at least one occasion, a record did not accurately reflect audit results, PSI has no option but to acknowledge the violation of 10 CFR 30.9(a) and Condition 10 of the license.

The violations indicated above are the result of the action of the Assistant Radiation Safety Officer. As soon as PSI Corporate Office was informed of the NRC investigation (1/90), the ARSO's authority for all assigned responsibilities was suspended. The ARSO has since terminated employment with PSI.

The corrective actions taken by PSI are as follows:

1. Revision of the PSI "Radiographers Field Audit" form and procedure to require the confirming signature of the radiographic personnel being audited.
2. Revision of the PSI "Radiography Radiation Safety Audit - Office" form and procedure, in its entirety, to require and document a more thorough corporate review of licensed operations at PSI offices. This action was taken because NRC inspectors identified the apparent violations, rather than a corporate auditor.
2. Suspension of further radiographic operations at the Sharon Hill facility from the time of the investigation to the present. Only those operations which PSI was obligated (by contract) to complete were permitted.

All RSO's (NRC and Agreement State) will be instructed regarding these issues of compliance with regulatory requirements and license conditions. Compliance with 10 CFR Parts 30 and 34 and license conditions will be assured prior to re-activating radiographic operations at the Sharon Hill facility. Revised forms utilization has been implemented throughout all other PSI radiographic offices.

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Item II.A. It appears that the survey performed at the Sharon Hill facility using the Jordan Radector AGB-500 survey meter may not have been performed adequately; to allow for the slow-response characteristic of ion chambers. The violation is acknowledged.

All radiographic personnel have been instructed regarding the subject of radiation survey performance; slowly enough to allow the survey meter to respond. A copy of the instruction information notice is enclosed.

In addition, PSI has recently purchased NDS Products, model ND-2000 survey meters (GM-tube type), with the intent to phase-out the use of older ion chamber survey meters (including the Jordan Radector AGB-500 meter).

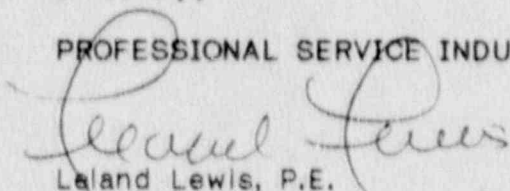
II.B. Regarding quarterly inspections of radiation alarm systems, it appears that an inspection of alarm at the Sharon Hill facility was not recorded between 4/26/88 and 9/24/88. The violation is acknowledged.

The RSO of the Sharon Hill Office has been instructed as to the requirements of quarterly alarm inspection and documentation. Full compliance with 10 CFR 34.29 (C) is immediate.

If PSI has failed to adequately address any items of noncompliance, or if you have any questions, please do not hesitate to contact me.

Sincerely,

PROFESSIONAL SERVICE INDUSTRIES, INC.



Leland Lewis, P.E.
Corporate Secretary

LL:JTT:lse

enclosures

cc: Regional Administrator
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406



Professional Service Industries, Inc.
Corporate Office

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INFORMATION NOTICE

INDUSTRIAL RADIOGRAPHY

RADIATION SURVEYS

Introduction

When regulations call for radiation surveys, the requirement is for adequate surveys. Radiation surveys must be conducted with the appropriate equipment, in a manner appropriate to the conditions, otherwise, an adequate survey has not been performed.

Regulations

Radiation regulations pertaining to industrial radiography require that surveys be made during radiographic operations

- 1) to determine that the sealed source has been returned to its shielded position after each radiographic exposure, and
- 2) to determine that each sealed source is in its shielded position prior to securing the radiographic exposure device or storage container.

All radiographers and assistant radiographers should already be fully aware of their obligation to comply with these requirements.

Violations

PSI radiographic crews have been cited violations for failure to perform adequate surveys; not because they failed to conduct the surveys, but because their survey methods were inappropriate.

Survey meters purchased by PTL and PSI were carefully selected to satisfy regulatory requirements, however, the manner of conducting surveys remains the daily responsibility of the radiographer.

For example, a PSI radiographer was recently cited by an NRC Inspector when he was observed performing radiation surveys too quickly. If a particular survey meter responds slowly to radiation, then the radiographer must conduct a slow survey. The slower the response time, the slower the survey must be.

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Survey Meters

In comparing different types of survey meters, ion chamber meters are generally slower than Geiger-Mueller (GM tube) meters. Ion chamber meters have other characteristics that make them desirable (and generally more expensive), but the slower response time can not be avoided. GM tubes have certain disadvantages, but one of the points in its favor is that it is faster than an ion chamber.

What difference does this make to PSI? The Jordan Radector meters in our inventory are ion chambers, and are therefore slower than GM-tube meters (such as NDS Products, G.E. Smith and Gamma Industries.) This does not mean the Radector is inappropriate for radiographic use. Violations have also been cited for performing surveys too quickly with GM-tube meters.

Survey Methods

You know that it is not enough to just have an operable, calibrated survey meter at the jobsite. You must use it.

You must also accept that it is not enough to carry and "look at" the dial of the survey meter when approaching an exposure device. You must read the meter's display or dial; in other words, you must use it properly.

To read a survey meter properly, you have to allow enough time for the meter to respond to the radiation field you may be entering. *If you do not allow time for a meter to respond while performing your surveys, then you are not actually performing a survey at all!* For that, you can be cited for non-compliance with regulations. Even worse, you may enter a hazardous radiation field without knowing it. This injures radiographers all too often, and is easily preventable.

Corrective Action

All radiography RSOs, ARSOs, radiographers and assistant radiographers are hereby notified that future radiographic surveys conducted by PSI employees must be performed in accordance with proper survey methods, as described in this notice.

If any PSI employee fails to allow for survey meter response time while performing radiography surveys, they will be operating in violation of Federal and/or State regulations and PSI/PTL radiographic procedure requirements.

In the course of future quarterly field audits of radiographic personnel, the RSO or ARSO must observe and evaluate surveys conducted by personnel, checking for the appropriate use of survey meters.