

VOID SHEET

TO: License Fee Management Branch

FROM: Region III

SUBJECT: VOIDED APPLICATION

Control Number: 88850

Applicant: Professional Service Industries, Inc.

Date Voided: 9/6/90

Reason for Void: \_\_\_\_\_

Combined E C/N 89981  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Kevin G. Null 9/6/90  
Signature Date

Attachment:  
Official Record Copy of  
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed:

- Refund Authorized and processed
- No Refund Due
- Fee Exempt or Fee Not Required

*ML30*

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Log completed   
Processed by: *CP*

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----  
: PROGRAM CODE: 03121  
: STATUS CODE: 0  
: FEE CATEGORY: 3P  
: EXP. DATE: 19910731  
: FEE COMMENTS: -----  
: .....

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED  
APPLICANT/LICENSEE: PROFESSIONAL SERV. IND., INC. (P)  
RECEIVED DATE: 900307  
DOCKET NO: 3011906  
CONTROL NO.: 388850  
LICENSE NO.: 12-16941-01  
ACTION TYPE: AMENDMENT

2. FEE ATTACHED  
AMOUNT: -----  
CHECK NO.: -----

3. COMMENTS  
*Add'l info to  
C/N 86708*

SIGNED *P. Lialoff*  
DATE *3-8-90*

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /---/)

1. FEE CATEGORY AND AMOUNT: *3P* ~~-----~~ *add'l info # 86708*  
**FEE NOT REQUIRED**

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:  
AMENDMENT  -----  
RENEWAL -----  
LICENSE -----

3. OTHER -----  
-----

SIGNED *cut*  
DATE *3/14/90*



**Professional Service Industries, Inc.**  
Corporate Office

U.S. Nuclear Regulatory Commission  
Region III  
799 Roosevelt Road  
Glen Ellyn, IL 60137

Attention: Mike McCann  
Materials Licensing Section

RECEIVED BY LFMS	
Date	3/14/90
Log	MAR 16 III
By	ect
Date Completed	3/14/90

March 2, 1990

Re: Control Number 86788  
License No. 12-16941-01

FEE NOT REQUIRED  
add'l info #86709

Dear Mr. McCann:

In accordance with your telephone reminder yesterday, the following information is provided to address the concerns expressed in Cassandra Frazier's letter dated June 12, 1989, regarding Professional Service Industries' proposed modification to the handles of Campbell Pacific Nuclear "Portaprobe" moisture density gauges (models MC-1, MC-2 & MC-3) in our inventory.

The queries categorically involve two primary concerns regarding the modification; assurance that the manufacturer's shielding provisions have not been compromised, and assurance that the handle has not been weakened.

PSI has not modified the locking pin, trigger or spring responsible for indexing the source rod in the shielded position. The manufacturer-provided "plunge" lock was designed to physically block the retraction of the trigger and locking pin; our modification substitutes a padlock shackle positioned to do the same. The objective benefits of the substitution, suggested by Troxler's locks, were for positive visual evidence of locking (*i.e., is the lock present or not?*) and ready availability of an "off-the-shelf" replacement padlock in the event of lock failure (*which has not been the case for the too-frequent replacements of the custom plunge lock.*)

The concern that the handle might be weakened is understandable, if based on the single drawing provided in the initial submittal. To more clearly depict the modification and configuration of original and substituted parts, photographs and an annotated drawing are attached.

Photo Summary:

- 1 typical breakage at weakest point
- 2 broken handle, disassembled
- 3 intact and broken locking pins
- 4 two handles depicting identical point of failure
- 5 disassembled modified handle
- 6 disassembled modified handle, alternate view

RECEIVED  
SEP 13 1989  
U.S. NUCLEAR REGULATORY COMMISSION  
MAR 13 1990  
RECEIVED  
MAR 13 1990  
U.S. NUCLEAR REGULATORY COMMISSION

RECEIVED  
MAR 07 1990  
REGION III

In specific response to each item of Ms. Frazier's June 12, 1989 letter, the following is submitted:

1. All operation/instruction text provided to PSI gauge users have been modified to reflect the changes in the CPN Portaprobe handle, specifically addressing the required use (*and locked closure*) of the padlock.
2. Destructive tests of the modified handle demonstrate that the handle is not weakened by the modification; when stressed, the handle breaks where it has "historically" broken. Enclosed photographs evidence these failures. Since no changes have been made in the locking pin, trigger or the source rod indexing for the manufacturer's safe, shielded position, the shielding provided for DOT Spec 7A package qualification has not been affected, either positively or negatively. This is verified after each installation by the performance standard addressed below, in item 3.b.
- 3.a. The lock hole is drilled to position the padlock shackle immediately behind the internal end of the locking pin, to restrict movement (*while locked*) of the pin and trigger to a tolerance equal-to-or-less-than that provided by the manufacturer. At the time of modification, each observed tolerance has been less than 1/32-inch, and typically approximated 1/64-inch. The submitted diagram was drawn to clearly differentiate each part, and in so doing, the tolerance was not accurately depicted. (As an item of additional information, based on measurements of handles as received from the manufacturer, a retraction of approximately 8/64-inch is required to release the locking pin and extend the source rod from the shielded position.)
- b. Assurance that the modified handle has been properly and effectively installed will be provided by the following performance standard: With the padlock installed, the locking pin trigger movement must be less than 1/32-inch, and when manually stressed, the handle (*and attached source rod*) must be positively retained in the uppermost "safe" position, as originally provided by the manufacturer's lock in new condition.
- c. The padlock shackle diameter measures 0.2-inch; the modification hole, as drilled, measures 0.25-inch.

The annotated drawing is provided to identify each part in the photographs, and to depict their relationships when assembled. The copper spring retainer is friction-fit and restrained by an aluminum plug, together filling the void left by the removal of the manufacturer's plunge lock. The "C"-clip and allen screw are retained manufacturer's provisions, locking the aluminum plug in place.

U.S. Nuclear Regulatory Commission  
March 2, 1990  
Page 3

Should you require any additional information, or would like to examine a sample modified handle (*or, if deemed worth investigating, the broken handles*), please do not hesitate to contact me.

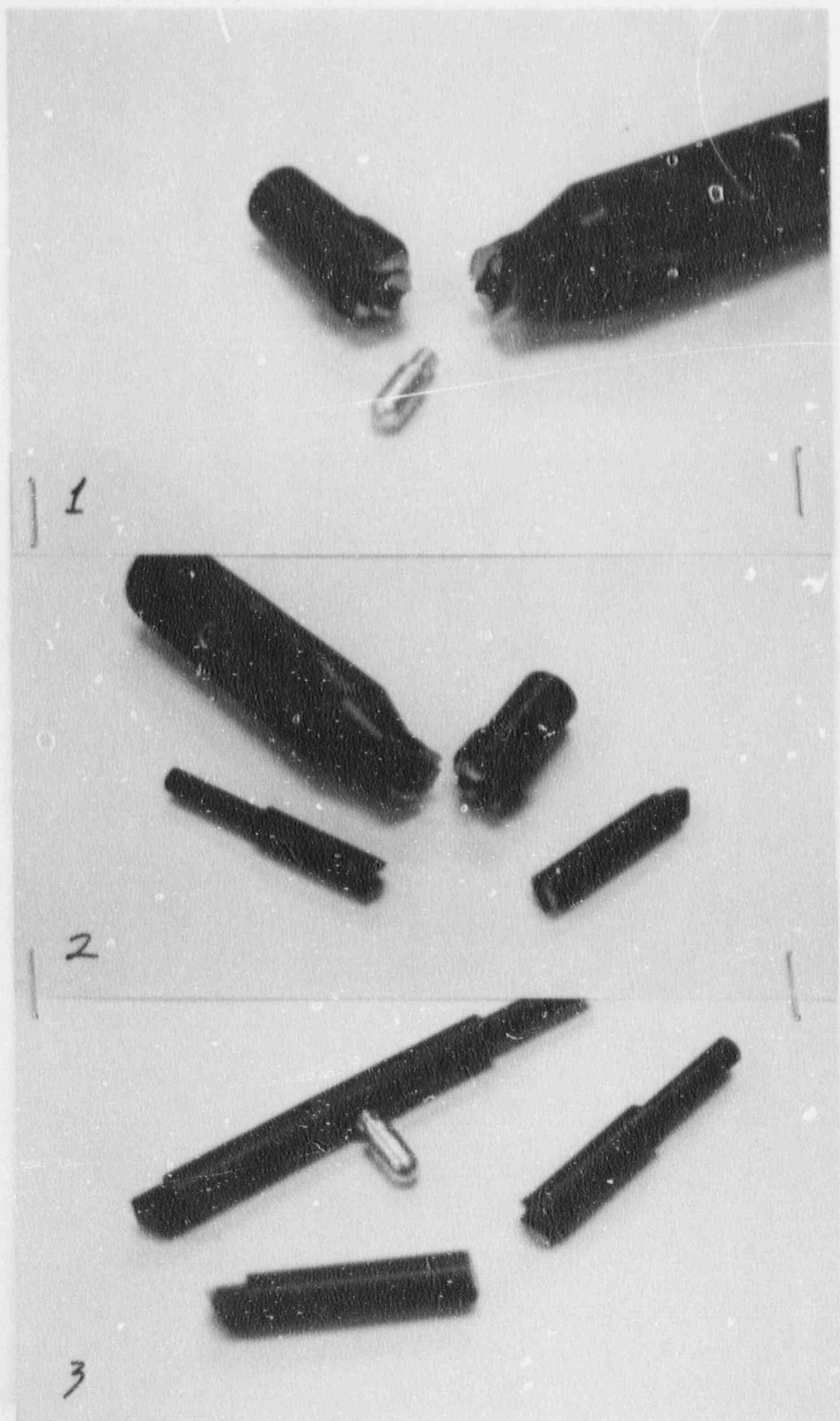
Sincerely,

PROFESSIONAL SERVICE INDUSTRIES, INC.



David S. Price  
Radiation Safety Director

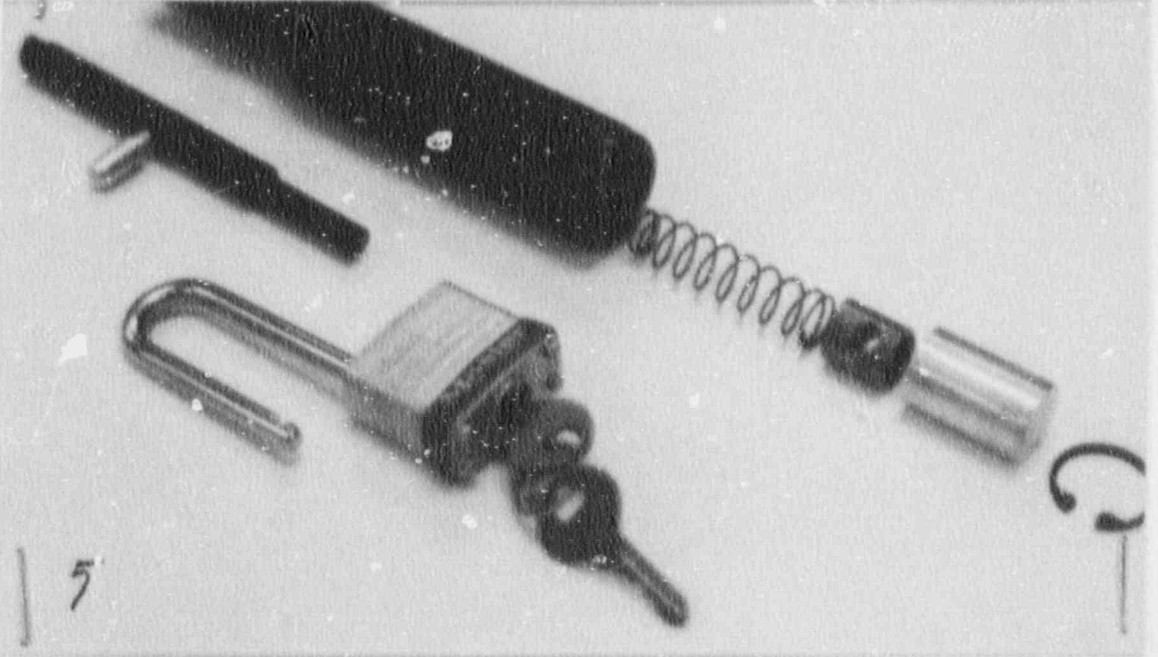
attachments



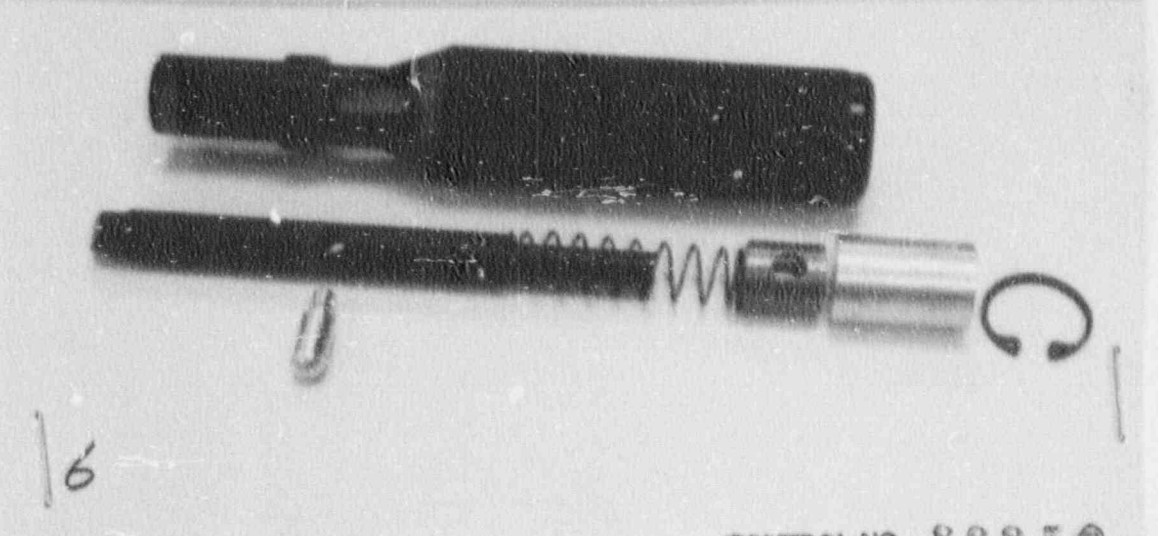
CONTROL No. 98950



4



5



6

