

POGUE INDUSTRIES INCORPORATED

5200 Manchester
St. Louis, Mo. 63110

Radiation Safety and Control Procedure

10.2.C

Survey Instrument Calibration Procedure

(performed by PII)

8510040254 850909
REG3 LIC30
24-24541-01 PDR

: Rev. :	Signature	: Date :
:	:	:
:	:	:
:	:	:
:	:	:
:	:	:
:	:	:
0	President <i>Harold Pogue</i>	7/08/85:
0	Q.A. Manager <i>William A. Bryant</i>	6/24/85:
0	prepared by <i>Harold Pogue</i>	3/04/85:

TABLE OF CONTENTS

Survey Instruments calibration Procedure

- 1.0 SCOPE
- 2.0 GENERAL
- 3.0 REFERENCES
- 4.0 PERSONNEL
- 5.0 EQUIPMENT
 - 5.1 Calibration Devices
 - 5.2 Survey Instruments
- 6.0 PROCESS
 - 6.1 Parameters
 - 6.2 Check Points
 - 6.3 Labeling
- 7.0 REPORTS
- 8.0 ACCEPTANCE CRITERIA

POGUE INDUSTRIES INCORPORATED

SURVEY INSTRUMENTS CALIBRATION PROCEDURE

1.0 SCOPE

- 1.1 This procedure describes the method in which approved PII personnel shall calibrate survey instruments.
- 1.2 This procedure does not apply to outside vendors supplying PII with survey instrument calibration services.

2.0 GENERAL

- 2.1 The method described herein is designed to meet the requirements of the U.S. Nuclear Regulatory Commission Title 10 Code of Federal Regulations, applicable Agreement State Regulations, and PII radiation license conditions.
- 2.2 Survey instruments shall be calibrated at intervals not to exceed three months and after servicing.
- 2.3 Survey instrument accuracy shall not exceed $\pm 20\%$ of the actual known calibration intensity.
- 2.4 Sufficient controls shall be incorporated by the individual performing the calibration to protect unauthorized personnel from exposure to radiation and to assure full compliance with company, NRC, state and local regulations.

3.0 REFERENCES

- 3.1 U.S. Nuclear Regulatory Commission Title 10 Code of Federal Regulations or applicable Agreement State Regulations.
- 3.2 PII Radiation Safety and Control Program.
- 3.3 Survey instruments calibration device manufacturers operating manual(s).

4.0 PERSONNEL

- 4.1 Personnel performing survey instrument calibrations shall be PII Certified:
 - (a) Radiation Safety Officer
 - (b) Assistant Radiation Safety Officer
 - (c) Radiation Safety Monitor

4.0 PERSONNEL continued

- 4.2 The individuals listed in Paragraph 4.1 of this procedure shall have training in the use of survey instrument calibration device(s) and in the calibration of survey instruments.
- 4.3 Individuals operating survey instrument calibration devices shall be provided with and wear a film badge and pocket dosimeter to monitor radiation exposure.

5.0 EQUIPMENT

- 5.1 The survey instrument calibration device and the byproduct material used in the device shall be of a make and model approved on PII byproduct material license.
- 5.1.2 The approved survey instrument calibration device of a make and model incorporating Cesium 137 may be used.
- 5.2 A survey instrument with a current valid calibration shall be used to monitor the radiation levels during the performance of the tests.

6.0 PROCESS

- 6.1 The calibration of survey instruments shall be performed in accordance with the survey instrument calibration device manufacturer's calibration procedures within the guidelines specified in this procedure and PII Radiation Safety and Control Program Operating and Emergency Procedure 10.2.A
- 6.1.1 A copy of the survey instrument calibration device manufactures calibration procedure, Radiation Safety and Control Program Operating and Emergency Procedure 10.2.A, this procedure and applicable USNRC or Agreement State regulations shall be available.
- 6.2 Survey instrument calibration shall be accomplished by checking two points on each range. These two points shall be separated by at least 50% of the full scale reading.
- 6.3 An adhesive label shall be affixed to calibration survey instruments. The label shall contain the following information:
- (a) Type of survey instruments;
 - (b) Serial number of survey instrument;
 - (c) Date calibrated;

6.0 PROCESS continued

- (d) Date calibration due;
- (e) Name or initials of individual performing calibration;
- (f) Certification number.

7.0 REPORTS

- 7.1 Calibration of survey instruments shall be documented and maintained on PII Form RSC 17 10.3.E.
- 7.2 Records prescribed by PII Radiation Safety and Control Program Procedures to meet the requirements of PII byproduct material license(s) and the USNRC or applicable Agreement State regulations shall be maintained.

8.0 ACCEPTANCE CRITERIA

- 8.1 Survey instruments which cannot be calibrated within $\pm 20\%$ of the actual known calibration intensity on any range shall be unacceptable.

POGUE INDUSTRIES INCORPORATED

CERTIFICATE OF SURVEY INSTRUMENT CALIBRATION

<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>Laboratory Number _____</p> </div> <div style="width: 50%;"> <p>Cert. No. _____</p> <p>Customer: _____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>P.O. NO. _____</p> </div> </div>			
INSTRUMENT DATA			
<p>Type _____</p> <p>Model _____</p>		<p>Serial No. _____</p> <p>I.D. No. _____</p>	
CALIBRATION DATA			
HIGH READING		LOW READING	
Scale	Radiation Level	Meter Reading	Radiation Level
	MR/HR	MR/HR	MR/HR
	MR/HR	MR/HR	MR/HR
	MR/HR	MR/HR	MR/HR
	MR/HR	MR/HR	MR/HR
	MR/HR	MR/HR	MR/HR
	MR/HR	MR/HR	MR/HR
<p>Calibration Source _____</p>		<p>Source Serial No. _____</p>	
MAINTENANCE DATA			
<p>Battery Condition: Satisfactory _____ Unsatisfactory _____ Replaced _____</p> <p>Clean Battery Contacts: Yes _____ No _____</p> <p>Cleaned Switch Contacts: Yes _____ No _____</p> <p>Routine Preventive Maintenance: Yes _____ No _____</p> <p>Other _____</p>			
<p>Components Replaced: _____</p>			
<p>We certify that this instrument was calibrated on the date shown and is accurate to within 20% on each scale range.</p>			
<p>Calibrated by: _____</p>		<p>Date Calibrated: _____</p>	
<p>Drift Time: _____ Temperature: _____</p>		<p>Recalibration Due Date: _____</p>	
<p>Reading Start: _____</p>		<p>Reading Stop: _____</p>	
<p>By: _____</p>			