

VIOLA ENGINEERING, PC

P.O. Box 575

Broadway, VA 22815

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NMSB

June 6, 2007

Licensing Assistant Team
Nuclear Materials Safety Branch
US Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

03036691

RE: Amendment to License Number 45-30965-01

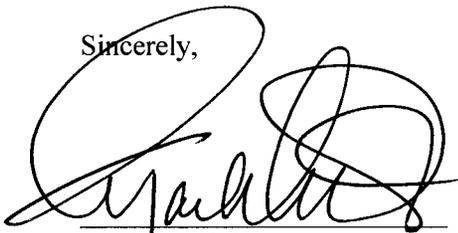
Dear Sir or Madam:

I would like to request an amendment to our License to authorize and include the InstronTek, Inc. Model 3500 Xplorer nuclear moisture/density gauge for measurement of soils and construction materials. The Model 3500 is registered under Sealed Source & Device Registration Certificate No. NC-1241-D-101-S, and contains the following sealed sources:

1. Cs-137 (AEA Technology QSA Model No. CDC.805 or Isotope Products Laboratories Model HEG-137)
Maximum activity: 11 mCi
2. Am-241:Be (AEA Technology QSA, Inc. Model No. AMN.V977 or Isotope Products Laboratories Model AM1.NO2)
Maximum activity: 44 mCi

Please let me know if I can provide any additional information.

Sincerely,



Mark A. Viola, PE, RSO
Owner
(cell) 540-421-1428

Enclosure: Xplorer Spec Sheet

2007 JUN 11 PM 12:49

RECEIVED
REGION 1

140639

NMSS/RGN1 MATERIALS-002



XPLORER™ | step up beyond the ordinary

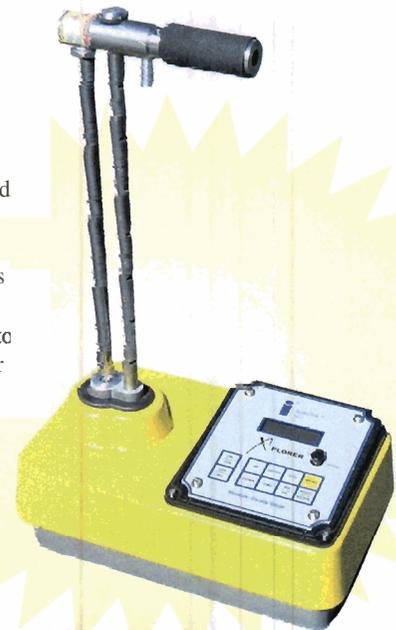
WITH PERFORMANCE, EXPERTISE AND SERVICE

InstroTek Model 3500 Xplorer is a new nuclear moisture density gauge designed to provide superior performance, with design experience and expertise that is unmatched in the industry and service that you have come to trust for over eight years. We asked our customers what they needed in a gauge and developed the Xplorer to withstand the rugged construction environment, be very affordable and be easy to operate.

We have field tested every critical component of the Xplorer for over two years. Features included on this gauge are designed to help the operators perform their job quickly and effectively. Useless "bells and whistles" are not included, making the gauge very simple to operate. Our goal was to develop a gauge that is better in performance than any other gauge in the market today with the lowest maintenance and operating cost.

Here are some of the features of this gauge:

- ▶ Superior Backscatter Composition and Surface Error for better results on asphalt pavements.
- ▶ Back light display for night use.
- ▶ Intelligent battery Life operation and monitoring for extended operations.
- ▶ Reliable surface mount components that will reduce your repair cost and reduce gauge down time.
- ▶ Integrated temperature monitor to ensure operators are obtaining the most accurate results.
- ▶ All critical mechanical parts are made from stainless steel.
- ▶ Software features such as Self Test, Special calibration, Asphalt Thinlayer mode and Diagnostics Tests.
- ▶ Superior plastic top shell design to ensure durability in field environment.



X PLOER™ model 3500

SPECIFICATIONS

Density Measurement Range	1120 to 2720 Kg/m3 (70 to 170 lb/ft3)
Moisture Measurement Range	0 to 640 Kg/m3 (0 to 40 lb/ft3)
Density Source	Cesium 137
Moisture Source	Americium 241: Beryllium
Density Source Activity	370 Mbq, (10 mCi)
Moisture Source Activity	1.48 Gbq, (40 mCi)
BS Precision at 2000 Kg/m3, (125 lb/ft3)	7.8 Kg/m3 (0.49 lb/ft3)
Direct Transmission Precision at 2000 Kg/m3 (125 lb/ft3)	3.5 Kg/m3 (0.22 lb/ft3)
Moisture Precision at 240 Kg/m3 (15 lb/ft3)	4.42 Kg/m3 (0.28 lb/ft3)
Composition Error BS	22.4 Kg/m3 (1.4 lb/ft3)
Composition Error Direct Transmission	22.4 Kg/m3 (1.4 lb/ft3)
Surface Error BS	17.6 Kg/m3 (1.1 lb/ft3)
Surface Error 150 mm (6") depth	16 kg/m3 (1 lb/ft3)
Backlight Display	Yes
Internal Temp Monitoring	Yes
Shielding Materials	Lead, Tungsten and Cadmium
Top Shell	UV Stabilized Plastic
Base and tower	Aluminum
Source Rod and Handle	Stainless Steel
Index Rod	Stainless Steel
Operating Temperature (ambient)	-10 to 70 C (14 to 158 F)
Surface Temperature	170 C (338 F)
Gauge Size	H 58.4 cm X L 30.8cm X W 22.2 cm (23"X 14.5"X 8.75")
Weight	14Kg (31 lb)
Shipping Weight	42 Kg (94 lb)

InstroTek®, Inc., Raleigh, NC phone: 919.875.8371 fax: 919.875.8328 e-mail: sales@InstroTek.com visit us at: www.InstroTek.com
West Coast Office: 6625 S. Valley View Blvd., Las Vegas, NV 89118 phone: 702.270.3885 visit us at: www.InstroTek.com/Las Vegas

This is to **acknowledge** the receipt of your **letter/application** dated

6/6/2007, and to inform you that the initial processing which includes an administrative review has been performed.

ATTEND. 45-30965-01
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail **Control Number** 140639.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(8-98)

Sincerely,
Licensing Assistance Team Leader