



# **Granger and Associates, Inc.**

224 South Main Street  
Cheboygan, Michigan 49721  
(231) 627-2763

March 29, 2006

Nuclear Regulatory Commission  
Region III  
801 Warrenville Road  
Lisle, Illinois 60532-4351

Re: License No. 21-20302-01

To Whom It May Be Concerned:

This is to advise you that effective on March 28, 2006, Troxler Density 3400 Gauge Nos. 16941 and 18527 have been sold and transferred to InstroTek, Inc., 5908 Triangle Dr., Raleigh, NC 27617.

Effective this same date, we have disposed of all of our nuclear gauges and discontinued providing density testing services. Therefore, we hereby request that our Materials License be terminated effective as of March 29, 2006.

If you have any questions, please contact us.

Sincerely,

James H. Granger  
enclosures

**To:** Granger & Associates Steve Granger  
**From:** InstroTek, Inc.  
**Date:** 3/20/2006  
**Re:** Transfer of gauges into InstroTek Inventory

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We have received and inspected the following gauges and have now permanently transferred these gauges into our inventory at 5908 Triangle Drive, Raleigh, NC 27617, USA.

Gauge Manufacturer	Model	S/N
Troxler	3440	16941
Troxler	3430	18527

If we can be of any assistance, please do not hesitate to contact us.

Sincerely,

Johnny Williams

Service Manager  
InstroTek, Inc.  
Phone 919-875-8371  
Fax 919-875-8328  
[www.instrotek.com](http://www.instrotek.com)

*Keep this in your file*



**RADIOACTIVE MATERIALS BRANCH  
RADIATION PROTECTION SECTION  
N. C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**

**RADIOACTIVE MATERIALS LICENSE**

Pursuant to North Carolina Regulations for Protection Against Radiation and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess, transfer, and import radioactive materials listed below; and use such radioactive material for the purpose(s) and at the place(s) designated below. This License is subject to all applicable rules and regulations of the North Carolina Department of Environment and Natural Resources now and hereafter in effect and to any conditions specified below.

1. Licensee Name: InstroTek, Inc.		3. License No: 092-10731		License Type 0623	
2a. Mailing Address: 5908 Triangle Drive Raleigh, NC 27617		4. Expiration Date: July 31, 2007			
b. Physical Address: 5908 Triangle Drive Raleigh, NC 27617		New License <input checked="" type="checkbox"/> Routine		Corrected Copy <input type="checkbox"/>	
		Renewal <input type="checkbox"/> Administrative <input type="checkbox"/>		Termination <input type="checkbox"/>	
c. Radiation Safety Officer: Ali Regimand		5.a. Amendment No.: 14			
		b. Issuance Date: July 22, 2004			

6. Radioactive Material (element and mass no.)	7. Chemical and/or Physical Form	8. Maximum Amount of Radioactivity and/or Quantity of Radioactive Material which Licensee May Possess at Any One Time.
A. Cesium 137	A. Sealed Source	A. No single source to exceed 11 millicuries
B. Americium 241:Be	B. Sealed Source	B. No single source to exceed 330 millicuries
C. Radium 226:Be	C. Sealed Source	C. No single source to exceed 4.5 millicuries
D. Cesium 137	D. Sealed Source	D. No single source to exceed 10 millicuries
E. Cobalt 60	E. Sealed Source	E. No single source to exceed 1 millicurie
F. Americium 241:Be	F. Sealed Source	F. No single source to exceed 100 millicuries
G. Cadmium 109	G. Sealed Source	G. No single source to exceed 10 millicuries
H. Barium 133	H. Sealed Source	H. No single source to exceed 10 millicuries
I. Thorium 230	I. Sealed Source	I. No single source to exceed 0.010 millicurie
J. Californium 252	J. Sealed Source	J. No single source to exceed 100 µCi

9. Authorized Use:

A - C. To be incorporated into various make and model moisture density gauges (in accordance with manufacturer's approved specifications only):

1) Troxler 3400 Series	5) CPN MC Series
2) Troxler 4640 Series	6) Humboldt 5001 Series
3) Troxler 3241 Series	7) Seaman C75 Series
4) Troxler 3216 Series	8) Seaman C200 Series

D - J. To be used for instrument testing, calibration, research and development.



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License No.: 092-1073-1

RADIOACTIVE MATERIALS LICENSE

CONDITIONS

10. A. The authorized place of use is the licensee's address stated in Item 2b. above.
- B. Radioactive materials may be used at temporary jobsites of the licensee throughout the State of North Carolina in areas not under exclusive Federal jurisdiction (Federal installations such as military bases, VA hospitals, etc). Authorization for the use of radioactive materials at temporary jobsites under exclusive Federal jurisdiction shall be obtained either by (1) filing an NRC Form 241 [10 CFR 150.20(b)], or (2) applying for reciprocity, or (3) applying for a specific license from the NRC if the length of the job is to exceed six (6) months.
- C. This condition does not prohibit the use of radioactive materials in other states; however, before radioactive material can be used at a temporary jobsite in another state, authorization must be obtained from the State, if it is an Agreement State, or from the Nuclear Regulatory Commission for any non-Agreement State, either by filing for reciprocity or applying for a specific license.
11. The licensee shall comply with the provisions of 15A NCAC 11.1600 "Standards for Protection Against Radiation," and 15A NCAC 11.1000 "Notices, Instructions, Reports and Inspections." (The North Carolina Regulations for Protection Against Radiation are contained in 15A NCAC 11.)
12. A. Licensed material shall only be used by Ali Regimand, or individuals who (1) are employees of the licensee, (2) have successfully completed an agency approved training program for gauge users, (3) have been instructed in the licensee's routine operating and emergency procedures and (4) have been designated in writing as having completed these requirements by the Radiation Safety Officer.
- B. Records of these designations shall be maintained for three (3) years after the company no longer employs the individual.
- C. The licensee shall establish a method of identification and documentation of training for all persons authorized in Condition A above. This shall be made available for review by the agency at the time of either a field or home office inspection.
- D. The Radiation Safety Officer for the activities authorized under this license shall be Ali Regimand.
13. A. Each sealed source containing radioactive material, other than Hydrogen 3 with a half-life greater than thirty (30) days and in any form other than gas, shall be tested for leakage and/or contamination at intervals not to exceed six (6) months, except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed three (3) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested.
- B. Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma-emitting material or 10 microcuries or less of alpha-emitting material.
- C. Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six (6) months prior to the date of use or transfer.
- D. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the agency.



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CONDITIONS (continued):

13. E. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with agency regulations. A report shall be filed within five (5) days of the test with the Radioactive Materials Branch, Radiation Protection Section, Department of Environment and Natural Resources, 1645 Mail Service Center, Raleigh, NC 27699-1645, describing the equipment involved, the test results, and the corrective action taken.
- F. Tests for leakage and/or contamination shall be performed by persons specifically authorized by the agency to perform such services.
14. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the agency and shall include the quantities and kinds of radioactive material, location of sealed sources, and the date of the inventory.
15. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provision of Section 71.5, Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material For Transport."
16. Sealed sources containing radioactive material shall not be opened or removed from their respective source holders by the licensee.
17. Gauges that are equipped with a sliding block which require servicing shall be cleaned and lubricated only by personnel who are authorized in the license to use the gauge and who have received training on how to remove, clean and lubricate the sliding block properly. The sliding block may be removed provided:
  - A. Personnel removing the sliding block wear appropriate personnel monitoring equipment; and
  - B. Personnel removing the sliding block stay on the opposite side of the gauge from the sliding block and use a mirror to view the removal and reinstallation of the sliding block in order to minimize exposure.
18. The licensee shall not attempt or perform any mechanical modification to the critical parts of any gauge, to include but not limited to sealed sources and shielding components.
19. The licensee shall keep records for each device authorized in this license showing which authorized user has the device, the time and date the device was removed from storage, job where device was used and the time and date the device was placed back into storage. Records of use shall be kept for two (2) years for inspection by the agency or until they have been reviewed by the agency and if the records are determined to be satisfactory, then they may be disposed of.
20. The licensee shall maintain and provide access (by the agency) to records which assure compliance with 15A NCAC 11 .0115 *Records*.
21. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 15A NCAC 11.0353 for establishing decommissioning financial assurance.
22. The licensee shall annually review its Radiation Protection Program for content and implementation [Reference: 15A NCAC 11 .1603(c)]. Documentation of the Radiation Protection program reviews shall be retained for inspection by the agency [Reference: 15A NCAC 11 .1636].
23. The licensee shall institute the provisions of 15A NCAC 11 .1610 when an occupationally exposed worker voluntarily informs her supervisor, in writing, of her pregnancy and the estimated date of conception.
24. The licensee shall ensure that no individual "member of the public" [Reference: 15A NCAC 11 .0104(64)] receives a radiation dose in excess of the limits specified in 15A NCAC 11 .1611(a) while conducting licensed operations.



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CONDITIONS (continued):

25. The licensee is approved to provide the following services (in accordance with, and as specified in renewal application with attachments dated May 29, 2002, signed by Ali Regimand, President).
- "Resale" of gauges to and from appropriately licensed entities.
  - Calibration and repair of gauges.
  - Provide Leak Test services.
  - Provide nuclear gauge training. Training shall be conducted by Ali Regimand and Larry James.
26. The licensee may conduct research and development provided:
- it is conducted in accordance with, and as specified, in renewal application with attachments dated May 29, 2002, signed by Ali Regimand, President.
  - research and development activities receive prior documented approval by the RSO, and
  - use of any sealed sources will be logged in and out of the locked storage area.
27. This license may be subject to amendment, revision, modification, suspension, or revocation in accordance with the provisions of 15A NCAC 11 .0344.
28. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6., 7., and 8. of this license in accordance with statements, representations and procedures and attachments listed below. The North Carolina Regulations for Protection Against Radiation shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- Application with attachments dated May 29, 2002, signed by Ali Regimand, President.
  - Application for Amendment dated December 2, 2003, signed by Ali Regimand, President.
  - Application for Amendment with attachment dated January 9, 2004, signed by Ali Regimand, President.
  - Letter with attachments dated January 28, 2004, signed by Ali Regimand, President.
  - Letter with attachments dated July 15, 2004, signed by Ali Regimand, President.

  
For: Beverly O. Hall

Section Chief, Radiation Protection Section  
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**Granger and Associates, Inc.**

224 South Main Street  
Cheboygan, Michigan 49721



Nuclear Regulatory Commission  
Region III (Materials Licensing Dept.)  
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Lisle, Illinois 60532-4352

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