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Waste Industry Experts

Henderson Building
Suite 203
2301 W Meadowview Rd
Greensboro, NC 27407

tel: 336/323-0092
fax: 336/323-0093

www.JoyceEngineering.com

HMSSB3

March 9, 2007

Licensing Assistant Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406-1415

*45-25518-01
03035379*

Joyce Engineering, Inc. submits with this letter for termination of license the Certificate of Disposition of Materials, Form 314, and documentation concerning transfer of radioactive materials to another licensee as required by the Title 10 CFR 30.36 Expiration and Termination of Licenses and Decommissioning, and Transfer of Material.

For additional information and clarification of the termination of license please contact myself by calling or sending an email, 336.323.0092 or hannu@joyceengineering.com.

Sincerely,
JOYCE ENGINEERING, INC.

Hannu Kempainen, P.G. RSO

Enclosure

C: Andre Coetzee, CFO

140221

NMSS/RGN1 MATERIALS-002

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

CERTIFICATE OF DISPOSITION OF MATERIALS

LICENSEE NAME AND ADDRESS

JOYCE ENGINEERING, INC.
1604 OWNBY LANE
RICHMOND, VA 23220

LICENSE NUMBER

45-25518-01

DOCKET NUMBER

03035379 *med*

LICENSE EXPIRATION DATE

JULY 31, 2010

A. LICENSE STATUS (Check the appropriate box)

- This license has expired.
- This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

- 1. No radioactive materials have ever been procured or possessed by the licensee under this license.
- 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:
 - a. Transfer of radioactive materials to the licensee listed below:
GEOTECHNICS, INC.
 - b. Disposal of radioactive materials:
 - 1. Directly by the licensee: *JOYCE ENGINEERING, INC.*
 - 2. By licensed disposal site:
 - 3. By waste contractor:
- c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

- 1. A radiation survey was conducted by the licensee. The survey confirms:
 - a. the absence of licensed radioactive materials
 - b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.
- 2. A copy of the radiation survey results:
 - a. is attached; or b. is not attached (Provide explanation); or c. was forwarded to NRC on: _____ Date
- 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and
 - a. The results of the latest leak test are attached; and/or
 - b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME <i>HANNU KEMPPINEN</i>	TITLE <i>RSO</i>	TELEPHONE (Include Area Code) <i>336.323.0092</i>	E-MAIL ADDRESS <i>*</i>
--------------------------------	---------------------	--	----------------------------

Mail all future correspondence regarding this license to:
2211 W. MEADOWVIEW RD, GSO, NC 27407 **hannu@joyceengineering.com*

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE

Hannu Kemppinen

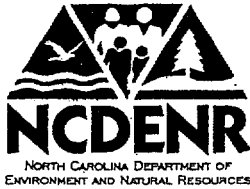
SIGNATURE

Hannu Kemppinen

DATE

3-8-2007

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.



**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: Geotechnics, Inc.	3. License No: 092-1230-1	License Type 0300									
2a. Mailing Address: 2200 Westinghouse Blvd., Suite 105 Raleigh, NC 27604-2491	4. Expiration Date: August 31, 2011										
b. Physical Address: 2200 Westinghouse Blvd., Suite 105 Raleigh, NC 27604-2491	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> <td style="width: 33%;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">New License</td> <td style="text-align: center;">Routine</td> <td style="text-align: center;">Corrected Copy</td> </tr> <tr> <td style="text-align: center;">X Renewal</td> <td style="text-align: center;">Administrative</td> <td style="text-align: center;">Termination</td> </tr> </table>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New License	Routine	Corrected Copy	X Renewal	Administrative	Termination	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>									
New License	Routine	Corrected Copy									
X Renewal	Administrative	Termination									
c. Radiation Safety Officer: Michael P. Smith	5.a. Amendment No.: 02 b. Issuance Date: November 3, 2006										
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. Not to exceed 10 millicuries per source.									
B. Americium 241	B. Sealed Source	B. Not to exceed 50 millicuries per source.									
9. Authorized Use: A. & B. To be used in a Troxler 3400 series portable moisture density gauge for determining the properties of construction materials.											

CONDITIONS

10. A. The authorized place of receipt and storage of radioactive material 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, V.A. Hospitals, etc.). Authorization for the use of radioactive materials at temporary jobsites under exclusive Federal Jurisdiction shall be obtained either by (1) filing a 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 materials 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 Michael P. Smith, or individuals who (1) are employees of the licensee, (2) have successfully completed a manufacturers 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.



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

RADIOACTIVE MATERIALS LICENSE

Page 2 of 3
License No.: 092-1230-1

CONDITIONS (continued):

12. C. The licensee shall establish a method of identification and documentation of training for the 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 Michael P. Smith.
13. A. Each sealed source containing radioactive material shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. In the absence of a certificate from the 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. 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.
- C. 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.
- D. Tests for leakage and /or contamination shall be performed by persons specifically authorized by the agency to perform such services.
14. 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."
15. Sealed sources containing radioactive material shall not be opened or removed from their respective source holders by the licensee.
16. 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.
17. The radioactive source rod containing radioactive material which requires servicing may be removed from the gauge for cleaning and lubrication only in accordance with procedures contained in the gauge manual and only by persons who are authorized in the license to use the gauge and who have received training on how to remove, clean, and lubricate the source rod properly. The source rod may be removed provided:
 - A. Personnel removing the source rod wear appropriate personnel monitoring equipment;
 - B. The source rod is removed while in an appropriate area away from other people;
 - C. After the source rod is cleaned and lubricated, a calibration check is made to confirm the source rod is in the proper location and instrument readings are normal;
 - D. Records show the location, date, and name of the person performing the cleaning, lubrication, and calibration check; and
 - E. The above records are maintained for a period of three (3) years or until the agency authorizes their disposal.



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

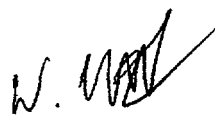
RADIOACTIVE MATERIALS LICENSE

CONDITIONS (continued):

18. 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.
19. The licensee shall conduct a physical inventory of all sealed sources received and possessed under this license at intervals not to exceed six (6) months. Records of the inventories shall be maintained for inspection by the agency and shall include the quantities and kinds of radioactive material, location of sources and the date of the inventory.
20. In addition to the possession limits in Item 8 above, 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.
21. 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].
22. The licensee shall institute the provisions of 15A NCAC 11 .1610 when an occupationally exposed woman voluntarily informs her supervisor, in writing, of the pregnancy and the estimated date of conception.
23. 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 activities.
24. This license may be subject to amendment, revision, modification, suspension, or revocation in accordance with the provisions of 15A NCAC 11 .0344.
25. In addition to the possession limits referenced in Item 8. above, the licensee shall further restrict possession of radionuclides listed in the table below to the quantities noted within the table. Sum of fractions for the radionuclides listed below shall not exceed unity:

Radionuclide	Quantity (curies)	Radionuclide	Quantity (curies)
Am-241.....	16	Pm-147.....	11,000
Am-241:Be.....	16	Pu-238.....	16
Cf-252.....	5.4	Pu-239:Be.....	16
Cm-244.....	14	Se-75.....	54
Co-60.....	8.1	Sr-90 (Y-90).....	270
Cs-137.....	27	Tm-170.....	5,400
Gd-153.....	270	Yb-169.....	81
Ir-192.....	22		

26. 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.
 - A. Application for renewal with attachments dated August 2, 2006, and letter with attachments dated October 30, 2006, signed by Michael P. Smith, Regional Manager.


 For: Beverly O. Hall
 Section Chief, Radiation Protection Section WBT

InstroTek, Inc.
5908 Triangle Dr
Raleigh, NC 27617
(919) 875-8371 Fax (919) 875-8328

Date: 3/1/2007
Test Number: 3

HANNU KEMPPINEN
JOYCE ENGINEERING, INC.
2211 W. MEADOWVIEW ROAD
SUITE#101
GREENSBORO, NC 27407

Phone: (336)323 -0092
FAX: (336)323 -0093

LEAK TEST CERTIFICATE

NC Materials License # 092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information.
The results shown below accurately represent the level of removable contamination.

Gauge model: 3440

Gauge S/N: 31574

Leak Test Date: 2/23/2007

Source	Reading in microCuries
47-28212	0.00000
750-6393	0.00030

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by:



Date: 3-1-07

InstroTek, Inc.
5908 Triangle Dr
Raleigh, NC 27617
(919) 875-8371 Fax (919) 875-8328

Date: 3/1/2007
Test Number: 3

HANNU KEMPPINEN
JOYCE ENGINEERING, INC.
2211 W. MEADOWVIEW ROAD
SUITE#101
GREENSBORO, NC 27407

Phone: (336)323 -0092
FAX: (336)323 -0093

LEAK TEST CERTIFICATE

NC Materials License # 092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information.
The results shown below accurately represent the level of removable contamination.

Gauge model: 3440

Gauge S/N: 33260

Leak Test Date: 2/23/2007

<u>Source</u>	<u>Reading in microCuries</u>
47-2262	0.00000
750-8639	0.00000

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by:



Date:

3-1-07

InstroTek, Inc.
5908 Triangle Dr
Raleigh, NC 27617
(919) 875-8371 Fax (919) 875-8328

Date: 3/1/2007
Test Number: 3

HANNU KEMPPINEN
JOYCE ENGINEERING, INC.
2211 W. MEADOWVIEW ROAD
SUITE#101
GREENSBORO, NC 27407

Phone: (336)323 -0092
FAX: (336)323 -0093

LEAK TEST CERTIFICATE

NC Materials License # 092-1073-1

This certifies that leak test analysis was conducted on the sample with the following information.
The results shown below accurately represent the level of removable contamination.

Gauge model: 3440 Gauge S/N: 33577 Leak Test Date: 2/23/2007

<u>Source</u>	<u>Reading in microCuries</u>
47-2041	0.00000
750-9263	0.00031

Note: 0.005 microCuries (185 Bq) or greater is considered a leaking source. The source(s) tested above may remain in use.

Reviewed by:



Date:

3-1-07



Waste Industry Experts

Henderson Building
Suite 203
2301 W Meadowview Rd
Greensboro, NC 27407

tel: 336/323-0092
fax: 336/323-0093

www.JoyceEngineering.com

March 8, 2007

Mr. Michael P. Smith, P.E.
Geotechnics, Inc.
2200 Westinghouse Boulevard, Suite 105
Raleigh, NC 27604

RE: Sale of three Troxler Model 3440 Gauges and Transfer of Material

Dear Mike,

Joyce Engineering, Inc. agrees to sell to you three portable nuclear gauges as a result of our recent negotiations. The gauges will be Troxler Model 3440 portable nuclear gauges, Serial Numbers 31574, 33260, and 33577, originally purchased in July 2000, May 2002, and July 2002, respectively.

Joyce Engineering, Inc. will remove the Troxler gauges, Serial Numbers referenced above, from its inventory as result of the sale and transfer of material. Michael Smith of Geotechnics, Inc. is the Radiation Safety Officer (RSO) and that Joyce Engineering, Inc. has a current copy of the Geotechnics, Inc. Radioactive Materials North Carolina License No. 092-1230-1. In accordance with 15A NCAC 11.0343 rules, Geotechnics, Inc. is authorized by their license to receive the type, form and quantity of radioactive material to be transferred with the Troxler 3440 model gauges.

With the sale and transfer of material, Geotechnics, Inc. agrees to submit a statement that Geotechnics, Inc. has accepted transfer of material and included Troxler gauges, Serial Numbers 31574, 33260, and 33577 in their inventory.

The agreed sale price for the three Troxler gauges is Seven Thousand Dollars (\$7,000) written to Joyce Engineering, Inc. Joyce Engineering, Inc. understands that the gauges are in working order based on the gauge performance during the summer of 2006. The gauges have not been used during 2007 calendar year. The sale is final as accepted.

Mr. Michael P. Smith, PE
Page 2
March 8, 2007

Sincerely,
JOYCE ENGINEERING, INC.

Hannu Kemppinen, P.G., RSO.
Senior Project Consultant

Accepted by:

Michael P. Smith
Name

Regional Manager, RSO 3-8-07
Title Date

Geotechnics, Inc.

Accepted by:

Hannu Kemppinen
Name

Sr. Consultant, RSO
Title Date
3/8/07

Joyce Engineering, Inc.

Attachments:

Copy of JEI "Certificate of Disposition" transfer of gauges to Geotechnics, Inc.
Copy of JEI Radioactive Materials North Carolina License No. 041-1255-1
Copies of Troxler gauges Model 3440, Serial Numbers 31574, 33260, and 33577,
original Sale/Transfer receipts
Geotechnics acknowledgement of the receipt of the radioactive materials transferred
Leak Test Certificates dated 3/1/2007

C: Andre Coetzee, CFO



March 5, 2007

Mr. Hannu Kemppinen
Joyce Engineering, Inc.
2211 W. Meadowview Rd., Suite 101
Greensboro, NC 27407

Hannu,

Geotechnics, Raleigh intends to purchase from Joyce Engineering, Inc., three (3) Troxler Model 3440 gauges for a total of \$7000.00. The Serial Numbers 31574, 33260 and 33577 will be sold as is and put into Geotechnics' Raleigh inventory effective signed date as noted below. Geotechnics' Radioactive License number is 092-1230-1.

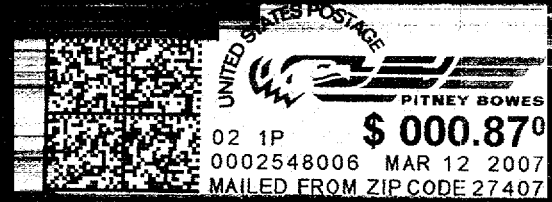
Sincerely,

Michael P. Smith
Radiation Safety Officer
Regional Manger

Please sign below indicating the sale and transfer of three gauges to Geotechnics, Inc..

Name Hannu Kemppinen Date March 8, 2007

Hannu Kemppinen
Joyce Engineering, Inc.
Radiation Safety Officer
Senior Project Consultant



Joyce Engineering, Inc.
2211 W. Meadowview Road, Suite 101
Greensboro, NC 27407

**Licensing Assistant Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415**

140221

This is to acknowledge the receipt of your letter/application dated NRC 314
3/8/2007, and to inform you that the initial processing which
includes an administrative review has been performed.

TEAM. 45-25513-01
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 140221.
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 (R1)
(6-96)

Sincerely,
Licensing Assistance Team Leader