



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

August 14, 2007

TechniScan, Inc.  
ATTN: David G. Davis  
Radiation Safety Officer  
155 S. Madison St., Suite 228  
Denver, CO 80209-3013

SUBJECT: LICENSE RENEWAL

Please find enclosed Amendment No. 01 to NRC License No. 05-27559-01, **authorizing your license renewal. This license renewal removes the authorization for cesium-137, since this radionuclide has never been possessed under your license.** An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14)(viii). You should review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or if you have any questions, contact me at 817-276-6552.

**Additionally, your license renewal application specified a limited quantity of portable devices. Item 8.A. was modified to reflect a possession limit for americium-241, to approximately 6 devices. If you require additional devices, please request a license amendment to increase the possession limit on your license. This quantity is also below the International Atomic Energy Agency's Category 3 amounts of radioactive materials. Possession of radioactive material in quantities below the Category 3 thresholds indicates that the license can be made publicly available after issuance since it does not meet the Sensitive Unclassified Non-Safeguards Information criteria as described in NRC's Regulatory Issue Summary 2005-31. This document is available on the NRC Web site at: (<http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2005/>).**

The regulations in 10 CFR 30.34, *Terms and conditions of licenses*, was revised to enhance the security requirements for portable gauges containing byproduct material. This revision became effective July 11, 2005. Revised 10 CFR 30.34 now requires that "each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee" (i.e., when not in use). Guidance on these security procedures is provided in the errata sheet for Appendix H of NUREG-1556, Volume 1, Revision 1 which may be located at: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1/r1/>.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public that can result from failure to comply with NRC requirements, you must conduct your radiation safety program according to the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate by NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC in writing of any change in mailing address.
3. By 10 CFR 30.36(d) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
  - a. When you decide to terminate all activities involving materials authorized under the license whether at the entire site or any separate building or outdoor area;
  - b. If you decide not to acquire or possess and use authorized material; or
  - c. When no principal activities under the license have been conducted for a period of 24 months.
4. Request and obtain a license amendment before you:
  - a. Change Radiation Safety Officers;
  - b. Order byproduct material in excess of the amount, radionuclide or form authorized on the license;
  - c. Add or change the areas or address(es) of use identified in the license application or on the license; or
  - d. Change the name or ownership of your organization.

In addition, please note that NRC Form 313 requires the applicant, by signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant. Since the NRC also accepts a letter requesting amendment of an NRC license, the signatory for such a request should also be the licensee or certifying official rather than a consultant.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the NRC Enforcement Policy. The NRC Enforcement Policy is available on the following internet address:

<http://www.nrc.gov/what-we-do/regulatory/enforcement/enforc-pol.pdf>.

The NRC no longer publishes the NRC Rules and Regulations loose leaf supplements due to budget constraints. However, an electronic version of the NRC's regulations is available on the NRC Web site at [www.nrc.gov](http://www.nrc.gov). To view these regulations, highlight "Electronic Reading Room" and choose "Regulations" on the drop down menu. An electronic version of the NUREG-1556 Series publications is also available on the NRC Web site. To view these guidance documents, highlight "Electronic Reading Room," then highlight "Document Collections" on the drop down menu, then select "NUREG-Series Publications" on the second drop down menu. Select "Publications Prepared by the NRC Staff." Then, choose "NUREG-1556" from the table and select the appropriate volume(s) for your license type.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

**/RA/**

Rachel S. Browder, Health Physicist  
Nuclear Materials Licensing Branch

Docket: 030-34392  
License: 05-27559-01  
Control: 471353

Enclosure: As stated

**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p>Licensee</p> <p>1. TechniScan, Inc.</p> <p>2. 155 South Madison Street, Suite 228 Denver, Colorado 80209-3013</p>	<p>In accordance with application dated April 18, 2007</p> <p>3. License number 05-27559-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date August 31, 2017</p> <p>5. Docket No. 030-34392 Reference No.</p>
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6. Byproduct, source, and/or  
special nuclear material

A. Americium-241

7. Chemical and/or physical form

A. Sealed neutron sources  
(CPN International, Inc.,  
Model CPN-131)

8. Maximum amount that licensee may possess at  
any one time under this license

A. 300 millicuries total. No single  
source to exceed the maximum  
activity specified in the certificate of  
registration issued by NRC or an  
Agreement State

9. Authorized use:

A. In CPN International, Inc., Model MC-MDR portable devices for measuring moisture of materials and Model MCM-2 portable devices for analyzing the presence of hydrogen in materials.

### CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at:

A. Temporary job sites anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating licensed material, including areas of exclusive Federal jurisdiction within Agreement States.

If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

11. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received the training described application dated April 18, 2007.

12. The Radiation Safety Officer (RSO) for this license is David G. Davis.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
05-27559-01Docket or Reference Number  
030-34392

Amendment No. 01

13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or by an Agreement State prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- C. Sealed sources need not be leak tested if they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- E. Tests for leakage and/or contamination shall be performed by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples but not perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
- F. Records of leak test results shall be kept in units of microcuries and shall be maintained for 3 years.
14. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.
15. Except for maintaining labeling as required by 10 CFR Part 20 or 71, the licensee shall obtain authorization from the U.S. Nuclear Regulatory Commission before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Registration Certificates issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
16. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
**05-27559-01**Docket or Reference Number  
**030-34392**

Amendment No. 01

17. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage or when not under the direct surveillance of an authorized user.
18. Any cleaning, maintenance, or repair of the gauges that requires detaching the source or source rod from the gauge shall be performed only by the manufacturer or other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
19. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
20. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated April 18, 2007

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

**/RA/**

Date: August 14, 2007

By: \_\_\_\_\_

Rachel S. Browder, Health Physicist  
Nuclear Materials Licensing Branch  
Region IV  
Arlington, Texas 76011