

# GEOCONSULT

Geotechnical engineers providing geotechnical engineering solutions...



Patricia A. Crumley, MECEE  
Tirso A. Álvarez, PhD  
Alan R. Crumley, MSCE

November 28, 2016

Mr. Dennis R. Lawyer, Health Physicist  
United States Nuclear Regulatory Commission  
Region I  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713

*Br. 2*  
*52-23751-01*

Reference: Change of Control GeoConsult, Inc.  
Docket No. 03031133  
Control No. ~~585088~~ *clm*

REC RC 1 01 26 17 AM 06:51

Dear Mr. Lawyer:

I am writing you to notify you that there has been a change in ownership of GeoConsult, Inc. I request that you review our license and update it accordingly, naming me as President. I have been with the company since 2007, though I took a brief sabbatical to work in government from 2009 through 2012. I am a civil engineer by training and I have worked closely with the technicians in their use of the regulated machines. I am aware of the safety precautions that must be followed and will continue to strictly adhere to them in the future.

Although my father is no longer the owner of the company, he continues to work with us and is always available to us for consulting in any manner we should need.

I have included our current materials license and my resume with this letter for your reference. Please feel free to contact me with any further clarifications that may be needed.

Sincerely,

Patricia A. Crumley, PE  
President and Owner  
GeoConsult, Inc.

Alan R. Crumley, PE  
Previous President and Past Owner  
GeoConsult, Inc.

**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 style="text-align: center;">Licensee</p> <p>1. GeoConsult, Inc.</p> <p>2. P.O. Box 362040 San Juan, Puerto Rico 00936-2040</p>	<p>In accordance with the application dated October 02, 2014,</p> <p>3. License number 52-23751-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date February 28, 2025</p> <hr/> <p>5. Docket No. 030-31133 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium 137</p> <p>B. Americium 241</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed Sources (CPN International Model CPN-131)</p> <p>B. Sealed Sources (CPN International Model CPN-131)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 120 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear regulatory Commission or an Agreement State</p> <p>B. 600 millicuries total and no single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear regulatory Commission or an Agreement State</p>
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9. Authorized use:

A. and B. In CPN International, Inc., Models MC series portable gauging devices for measuring physical properties of materials.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
52-23751-01Docket or Reference Number  
030-31133

Amendment No. 07

**CONDITIONS**

10. Licensed material may be used or stored at the licensee's facilities located at Lot #6, Monterrey Street, Monterrey Industrial Zone, San Juan, Puerto Rico, and may be used at temporary job sites of the licensee anywhere in the United States where the U.S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of 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 be used by, or under the supervision of, individuals who have received the training described in application dated October 02, 2014 and have been designated, in writing, by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
12. The Radiation Safety Officer for this license is Alan R. Crumley.
13. 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.
14. A. Sealed sources shall be tested for leakage and/or contamination at intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of 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 the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- C. Sealed sources need not be 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.

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- 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.
- E. Tests for leakage and/or contamination, limited to leak test sample collection, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services. The licensee is not authorized to perform the analysis; analysis of leak test samples must be performed by persons specifically licensed by U.S. Nuclear Regulatory 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 5 years.
15. The licensee shall conduct a physical inventory every six 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. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
16. 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 or storage, or when not under the direct surveillance of an authorized user.
17. 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 by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

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19. 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 October 02, 2014 (ML14290A398)

For the U.S. Nuclear Regulatory Commission

Date February 11, 2015

By

*Original signed by Dennis R. Lawyer*

Dennis R. Lawyer  
Commercial, Industrial, R&D and Academic Branch  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406

# GEOCONSULT

Geotechnical Engineers

## Patricia A. Crumley, PE

pcrumley@geoconsult.us

crumleyp@alum.mit.edu

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**EDUCATION:** **MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA**  
*Master of Engineering in Civil and Environmental Engineering, June 2004. GPA 4.7/5.0*

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA**  
*Bachelor of Science in Civil Engineering, June 2003. GPA 4.4/5.0*

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**EXPERIENCE:** **GEOCONSULT, INC.** 01/2013 – present  
San Juan, Puerto Rico  
*President:* Manage all aspects of business operation and resources. Responsible for all aspects of project management and administration, and business development. Actively participate in engineering and management of projects including foundation design, slope stability analyses and earth retaining structure design. Conduct site inspections, environmental permit evaluations, and environmental site assessments. Recent projects include participation in foundation design for INL Prison in Niamey, in the Republic of Niger, Africa and foundation design for expansion of the mall at Fort Buchanan in San Juan, Puerto Rico.

**GOVERNMENT OF PUERTO RICO, OFFICE OF THE GOVERNOR** 2012  
San Juan, Puerto Rico  
*Deputy Chief of Staff:* Represented the Governor and the Governor's Chief of Staff in all matters concerning public policy implementation. Manage communication across all Government agencies (over 130 agencies). Oversee, manage, and prioritize project execution across Government agencies. Actively involved in the Energy Public Policy Committee. The Committee was composed of all government entities involved in all aspects of energy project development and public policy implementation.

**GOVERNMENT OF PUERTO RICO, PUERTO RICO ELECTRIC POWER AUTHORITY** 2011 - 2012  
San Juan, Puerto Rico  
*Director, Planning and Environmental Protection:* Managed department personnel (120 employees) and programs. Actively involved in all aspects concerning monthly client billing, forecasting, and projections. Implemented new residential consumer tariff. Developed and managed PREPA's Capital Improvement Program (CIP) and reconciled PREPA's budget versus its needs for maintenance issues and achievement of strategic plans. Managed PREPA's environmental permits and ensured compliance with state and federal environmental regulations and permits. Evaluated all aspects of renewable energy project proposals. Overlooked all steps of the evaluation process including project review by the Generation and Legal Departments. Managed all aspects of private large-scale co-generators and renewable energy contracts. Prepared and delivered presentations before PREPA's Board of Directors, legislators and media. Served as Board Member of PREPA Holdings, LLC, a private PREPA subsidiary.

**GOVERNMENT OF PUERTO RICO, SOLID WASTE AUTHORITY** 2009 - 2011  
San Juan, Puerto Rico  
*Deputy Director:* Managed agency day-to-day operations, personnel (79 employees), and programs. Planned, managed and implemented the agency's administrative and technical activities, including assignment of duties and optimizing the agency's organizational structures according to budget and operational challenges. Actively

involved in budgetary issues within the agency. Implemented Government initiatives to plan an economically sound and technically feasible solid waste management plan. Conducted comprehensive evaluation of proposed Waste to Energy projects, including proposed technologies, technical viability, and site selection. Actively involved in all aspects concerning technical evaluations of the Authority's installations across Puerto Rico. Managed agency implementation for Act 70 of 2010 (Incentives and Retirement Program). Prepared and delivered public presentations before academia, professional organizations, legislators and media.

## **GOVERNMENT OF PUERTO RICO, OFFICE OF THE GOVERNOR**

San Juan, Puerto Rico

2009

*Deputy Advisor:* Represented the Office of the Governor in matters concerning the Puerto Rico Aqueduct and Sewer Authority, the Government of Puerto Rico Department of Housing, and the United States Army Corps of Engineers. Co-led team evaluating the viability of a major electrical power infrastructure project. Assessed infrastructure and budget requirements for the dredging of Caño Martín Peña. Represented the Office of the Governor in related meetings.

## **GEOCONSULT, INC.**

San Juan, Puerto Rico

2007 - 2009

*Geotechnical Engineer:* Field Geotechnical Engineer at Río Blanco Offstream Dam in Naguabo, Puerto Rico (\$104M construction value). Supervised all geotechnical construction for quality control and assurance, design review, calculated earth volumes for payment to contractor, supervised field technicians and coordinated materials testing. Performed field testing program and actively participated in extensive analyses that were required to modify specifications to achieve faster construction. Participated in projects including foundation design, slope stability analyses and earth retaining structure design (e.g., Dos Hermanos Bridge, portions of PR-66, Wyndham Río Mar, Los Lagos at Palmas del Mar).

## **EVERTEC, POPULAR INC.**

San Juan, Puerto Rico

2004 - 2007

*System Architect:* Duties included meeting with business owners in order to understand business users' needs when designing new services for multiple banking delivery channel and overseeing the operation of the production, development, and certification hardware subsystems. Managed project implementations and coordinated deployment procedures. Supervised local and offshore resources. Led a team of system architects, developers and subject-matter experts from business units in the analysis of the current branch automation system for Banco Popular de Puerto Rico for replacement with a new web-based application that integrated into Service Oriented Architecture infrastructure.

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## **LICENSES AND AFFILIATIONS:**

Professional Engineer in Puerto Rico (license number 21676)  
Professional Engineer in Virginia (license number 052677)  
Engineer-in-Training in Massachusetts (certificate number 20326)  
American Society of Civil Engineers  
Colegio de Ingenieros y Agrimensores de Puerto Rico  
Member, MIT Educational Council  
2014 MITES Selection Committee



**ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE**

<b>Name and Address of Applicant and/or Licensee</b>  GeoConsult, Inc. ATTN: Alex Donato, Safety Manager P. O. Box 362040 San Juan, PR 00936-2040	<b>Date</b> January 30, 2017
	<b>License Number(s)</b> 52-23751-01
	<b>Mail Control Number(s)</b> 582879
	<b>Licensing and/or Technical Reviewer or Branch</b> Commercial, Industrial, R&D, & Academic Branch (Branch 2)

This is to acknowledge receipt of your:  Letter and/or  Application Dated: 11/28/2016

The initial processing, which included an administrative review, has been performed.  
 Amendment  Termination  New License  Renewal

There were no administrative omissions identified during our initial review.

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>  
 Follow the instructions on the form for submission.

The following administrative omissions have been identified:  
 [Empty box for listing omissions]

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

**Region I**  
**U. S. Nuclear Regulatory Commission**  
**Division of Nuclear Materials Safety**  
**2100 Renaissance Boulevard, Suite 100**  
**King of Prussia, PA 19406-2713**  
**(610) 337-5260, (610) 337-5313,**  
**(610) 337-5398, or (610) 337-5239**