Canada Carbon Provides Project Update to Canadian Nuclear Safety Commission (CNSC)

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VANCOUVER, British Columbia, April 30, 2018 (GLOBE NEWSWIRE) -- Canada Carbon (the "Company") (TSX-V: CCB) (OTC: BRUZF) (FRANKFURT: U7N1) is pleased to announce that the Company has updated its regulatory filings with the Canadian Nuclear Safety Commission ("CNSC"), the federal regulator of nuclear power and materials in Canada. The Government of Canada has signed safeguards agreements with the International Atomic Energy Agency ("IAEA") which require Canada to provide extensive information and access to the IAEA. The CNSC has the mandate to achieve Canadian conformity with those agreements, which include extensive reporting about nuclear graphite as defined in international treaties. Canada Carbon was an invited guest to the International Nuclear Graphite Specialists Meeting, held at the IAEA facilities in Vienna Austria, September 5th–8th, 2016.

On February 22nd, 2018, La Presse, a Quebec newspaper, reported that Parliamentary Secretary Kim Rudd, on behalf of Canada’s Minister of Natural Resources ("NRCan"), announced a road mapping process under the Energy Innovation Program to explore the potential for on- and off-grid applications for small modular reactor ("SMR") technology in Canada. Driven by interested provincial and territorial governments and energy utilities, the exercise will be delivered by the Canadian Nuclear Association and engage stakeholders to better understand their views on priorities and challenges related to the possible development and deployment of SMRs in Canada.

Jason Cameron, Vice-President and Chief Communications Officer for the Canadian Nuclear Safety Commission remarked to the participants attending the Canadian Nuclear Laboratories Small Modular Reactors Workshop, "In recent years in Canada, interest in SMRs has increasingly been a subject of careful consideration, as a means to reduce greenhouse gas emissions and to provide reliable heating and electricity generation capacity in northern and remote communities as well as commercial operations."

Participation in the NRCan SMR roadmap program will eventually expand to include all essential enabling partners, including manufacturers, research performers, waste management organizations and the Canadian Nuclear Safety Commission. The stakeholder-driven roadmap will build upon their existing groundwork to foster innovation and establish a long-term vision for the industry, as well as to assess the characteristics of different SMR technologies and how they align with user-requirements and Canadian priorities. The roadmap will be an important step in positioning Canada to advance next-generation technologies and become a global leader in the emerging SMR market. National nuclear science and technology organisation Canadian Nuclear Laboratories ("CNL") will provide scientific support for prototype development and testing under the SMR program. Last year, CNL set a goal of locating a new SMR on its Chalk River site by 2026, receiving 19 expressions of interest in constructing a prototype or demonstration SMR at the CNL facility. Further background information about the SMR program is available at: https://cna.ca/wp-content/uploads/2014/05/Small-Modular-Reactor-Basics-CNA-2016.pdf

Executive Chairman and CEO R. Bruce Duncan commented, "The Government of Canada has been building the framework for a domestic SMR development program over a period of years. Canada Carbon has demonstrated that it can produce nuclear-grade graphite of exceptional purity using off-the-shelf processing methods, because the Miller graphite deposit contains very few contaminants. We look forward to having the opportunity to participate in a home-grown low-carbon energy solution that can benefit all Canadians, especially those in northern or remote communities."

On September 14th, 2016, Canada Carbon announced that it had been selected by X Energy, LLC ("X-energy") of Greenbelt, Maryland to supply its thermally purified Miller nuclear graphite to be as tested as a key ingredient for the fuel compacts used in the X-energy Xe-100 small modular pebble bed nuclear reactor. Oak Ridge National Laboratory, site of the High Flux Isotope Reactor, is conducting extensive pre- and post-irradiation tests on the X-energy fuel compacts. High temperature gas cooled reactors such as the Xe-100 pebble bed design have the additional benefits of co-generation of process heat suitable for hydrogen production, water desalination or purification, and heat for homes, businesses or greenhouse
operations, in addition to being stable and reliable low-carbon sources of electricity.

As reported by the Company on May 13th, 2015, decades of research to develop a suitable graphite matrix for the fuel compacts has settled on a mixture composed of natural graphite, synthetic graphite, and binding resin in the weight proportions of 64:16:20, respectively. The specific elemental impurity content in each of these components is a critical criterion. Tests of fuel compacts under actual reactor conditions conducted by Idaho National Laboratory have determined that nine elemental contaminants are of special concern, which they have defined in AGR-2 Specification SPC-923 (for further information, please access Reference 1, below). Oak Ridge National Laboratory is charged with determining the best available graphite products to address this specification. Numerous commercial and experimental graphite products (12 synthetic graphite samples and 7 natural graphite samples) were assessed for elemental impurities by GDMS (for further information, please access Reference 2, below). For comparison purposes only, two samples of CCB's thermally treated graphite are included in the following table, which also includes data derived from Ref. 2. To calculate the total impurity content, the "less than" symbol is ignored; i.e. <0.05 would be treated as if the measured content was 0.05.

SELECTED NUCLEAR GRAPHITE CONTAMINANTS, AGR-2 SPECIFICATION SPC-923

<table>
<thead>
<tr>
<th>ELEMENT</th>
<th>SYMBOL</th>
<th>CCB SAMPLE</th>
<th>ASBURY RD13371</th>
<th>GRAFTECH-D</th>
<th>SGL KRB-2000</th>
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<tbody>
<tr>
<td>ALUMINUM</td>
<td>Al</td>
<td>&lt;0.01</td>
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<td>CALCIUM</td>
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<td>10</td>
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<td>TITANIUM</td>
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<td>0.66</td>
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<td>VANADIUM</td>
<td>V</td>
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<tr>
<td>CHROMIUM</td>
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<tr>
<td>MANGANESE</td>
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<td>COBALT</td>
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<td>&lt;0.05</td>
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<tr>
<td>NICKEL</td>
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<td>TOTAL CONTAMINANTS</td>
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<td>36.55</td>
<td>8.1</td>
<td>4.53</td>
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</table>

Notes:
1. Natural graphite samples.
2. Synthetic graphite samples.
3. All reported values are parts per million, by weight (ppm), as determined by Glow Discharge Mass Spectrometry (GDMS) analysis conducted by Evans Analytical, Liverpool NY.

References:

About Oak Ridge National Laboratory (ORNL):

Oak Ridge National Laboratory (ORNL) is a multiprogramming science and technology national laboratory managed for the United States Department of Energy (DOE) by UT-Battelle. ORNL is the largest science and energy national laboratory in the Department of Energy system by acreage. ORNL is located in Oak Ridge, Tennessee, near Knoxville. ORNL’s scientific programs focus on materials, neutron science, energy, high-performance-computing, systems biology and national security.

About Idaho National Laboratory (INL):

Idaho National Laboratory in operation since 1949, is a science-based, applied engineering national
laboratory dedicated to supporting the U.S. Department of Energy's missions in energy research, nuclear science and national defense. The lab has numerous alternative energy and national security programs. Robotics, wind power, high-performance computing, biofuels, critical infrastructure protection, carbon management and advanced vehicle testing are just a few examples of its multifaceted research capabilities.

QUALIFIED PERSON

Steven Lauzier, P.Geo. OQ1430, a Qualified Person as defined by National Instrument 43-101 guidelines, has reviewed and approved the technical content of this news release.

CANADA CARBON INC.

"R. Bruce Duncan"
CEO and Director

Contact Information
E-mail inquiries: info@canadacarbon.com
P: (604) 685-6375
F: (604) 909-1163

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