



**NANOTECH SECURITY CORP.**

**ANNUAL INFORMATION FORM**

**April 26, 2016**

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## 1. GENERAL MATTERS

In this Annual Information Form, unless otherwise indicated, all dollar amounts are expressed in Canadian dollars and references to “\$” are to Canadian dollars. Nanotech Security Corp. primarily sells its products and services in Canadian and US dollars, and incurs expenses primarily in those two currencies.

### *Exchange Rate Information*

The following table sets out (a) the rate of exchange for one US dollar in Canadian dollars in effect at the end of each of the following periods, (b) the high and low rate of exchange during those periods and (c) the average rate of exchange for those periods, based on the noon buying rates of exchange published by the Bank of Canada:

	High	Low	Average <sup>(1)</sup>	End of Period
Three Months Ended December 31, 2015	C\$1.3990	C\$1.2904	C\$1.3354	C\$1.3840
Year Ended September 30, 2015	C\$1.3413	C\$1.1136	C\$1.2292	C\$1.3345
Year Ended September 30, 2014	C\$1.1251	C\$1.0284	C\$1.0831	C\$1.1200

Note:

The average of the daily noon buying rates on the last business day of each month during the period.

Unless otherwise indicated or if the context requires otherwise, “Nanotech”, the “Company”, “we”, “us” and “our” refer to Nanotech Security Corp. and its subsidiary. As an issuer traded on the TSX Venture Exchange, the Company is not required to file an annual information form but is doing so voluntarily with the intention of enhancing its corporate disclosure and thereby improving its access to capital markets. Accordingly, the information contained in this Annual Information Form is stated as at April 26, 2016.

## 2. FORWARD LOOKING INFORMATION

This Annual Information Form contains forward-looking statements concerning anticipated developments in the Company’s operations in future periods, the adequacy of Nanotech’s financial resources, and the events or condition that may occur in the future. Forward-looking statements are frequently, but not always, identified by words such as “expects”, “anticipates”, “believes”, “intends”, “estimates”, “predicts”, “potential”, “targeted”, “plans”, “possible” and similar expressions, or statements that events, conditions or results “will”, “may”, “could” or “should” occur or be achieved.

These forward-looking statements include, without limitation, statements about the Company’s market opportunities, strategies, competition, and the Company’s views that its nano-optic and optical thin film technologies will continue to show promise for mass production. Other forward-looking statements imply that the Company will remain capable of being financed and/or will be able to partner development until profitability is eventually realized. The principal risks related to these forward looking statements are that the Company’s intellectual property claims will not prove sufficiently broad or enforceable to provide the necessary protection and to attract the necessary capital and/or that the Company’s products will not be able to displace entrenched hologram, metalized strip tagging as well as other conventional anti-counterfeiting technologies sufficiently to allow for profitability.

These forward-looking statements are based on the beliefs, expectations and opinions of management on the date the statements are made. Consequently, all forward-looking statements made in this Annual Information Form or the documents incorporated by reference are qualified by this cautionary statement and there can be no assurance that actual results or developments the Company anticipates will be realized. For additional information with respect to certain of these risks or factors reference should be made to the

“Business Risks” section of the MD&A and notes to the consolidated financial statements for the year ended September 30, 2015, as well as with the Company’s continuous disclosure materials filed from time to time with Canadian securities regulatory authorities, which are available online at [www.sedar.com](http://www.sedar.com). Nanotech disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, other than as required by law. Caution needs to be used when taking forward-looking statements into account when evaluating the Company.

#### *Glossary of Certain Terms*

“**Fortress Optical**” refers to Fortress Optical Features Ltd., a company developing and selling banknote security features that was acquired by Nanotech in September 2014.

“**IP**” is an acronym for intellectual property.

“**nano**” is a scale of one billionth of a metre. A toy glass marble is one billionth the size of the earth.

“**nano-optic**” is a neologism which is used by the Company to refer to its nano scale optical feature technology which produces a visible image and or colour in the surface of a substrate, usually polymer or metal.

“**OTF**” means Optical Thin Film, an OVD in the form of a metalized strip typically between 1.4 and 4.0 millimeters which is woven into banknotes and other documents and products. OTF usually has colour shifting properties that allow it to shift between two colours depending on the tilt angle at which the banknote and its thread are viewed.

“**OVD**” means Optical Variable Devices. OVDs are a category of visual security features which includes holograms, QR codes (or Quick Response a printable matrix bar code) and various kinds of tags, as well as OTFs and the Company’s nano-optical products.

“**plasmonic**” refers to the visible colour and image effect on light-waves when they strike a metalized surface. In the case of Nanotech’s IP, it refers to the effect on light waves when they strike a surface textured with hundreds of millions of nanometre sized holes arrayed in various patterns.

“**R&D**” means research and development.

“**SFU**” means Simon Fraser University located at 8888 University Drive, Burnaby, BC V5A 1S6.

### **3. CORPORATE STRUCTURE**

Nanotech Security Corp. was incorporated under the laws of the Province of British Columbia, Canada on May 4, 1984. It was originally incorporated as Cancom Industries Ltd. and has undergone three name changes namely Strategic Technologies Inc., Wireless2 Technologies Inc. and then to its current name, Nanotech Security Corp. which was adopted on April 14, 2010.

The Company’s head office is located at Suite 505 – 3292 Production Way, Burnaby, British Columbia, V5A 4R4. The Company’s registered and legal records office is in care of its attorneys, McMillan LLP at Suite 1500 - 1055 West Georgia Street, Vancouver, British Columbia, Canada V6E 4N7.

The only change to the Company’s constitutional documents was to update corporate articles in 2005 to reflect the adoption of a new British Columbia corporate law statute (formerly the *Company Act* (British

Columbia) now the *Business Corporations Act* (British Columbia)) and in 2011 to update certain governance provisions. The current corporate articles are on file at [www.SEDAR.com](http://www.SEDAR.com).

The Company has one active wholly-owned subsidiary, Tactical Technologies Inc. (“Tactical”), which is incorporated in the State of Delaware and operates a surveillance equipment manufacturing business from facilities in Holmes, Pennsylvania, USA. Tactical’s registered office is c/o Delaware Corporation Organizers, Inc., 1201 North Market Street, P.O. Box 1347, Wilmington, Delaware, 19801. The Company also has one inactive wholly-owned subsidiary incorporated in Delaware; Strategic Monitoring Services Inc.

## 4. GENERAL DEVELOPMENT OF THE BUSINESS

### A. Overview of Nanotech’s Two Business Divisions

The Company operates its business through two divisions – Security Features and Surveillance. The Company’s reportable segments are strategic business units that offer different products and services. They are managed separately because each business is in a different stage in its life cycle and they require different sales and marketing strategies.

#### *i. Security Features*

The Security Features division provides nano-optic and OTF based security feature OVDs for use in anti-counterfeiting and authentication processes and products including currency, legal documents, and commercial products. The Company conducts research at its Burnaby, BC head office, its research and production facility in Thurso, Quebec, Canada and at 4D LABS nanofabrication facility, a Canadian federal government sponsored physics laboratory and clean room facility located at SFU, in Burnaby, British Columbia, Canada.

The nano-optic security features employ arrays of hundreds of millions or billions of nano-holes that are impressed or embossed onto a substrate material such as polymer, paper, metal, or fabric. By using sophisticated algorithms to direct an electron beam, the Company is able to create arrays of unique light signatures (visual images). These nano-hole structures create colour shifting effects that provide visual features such as 3D, high-definition and motion-impression, and can also display distinct colours including skin tones, white, and black, some of which effects are not possible using current holographic technology.

The OTF security features are manufactured using precision engineered nanometre thick layers of metals and ceramics to form OTF filters designed to uniquely manipulate visible and non-visible light. This unique manipulation of light properties is used to create specialized security features in the form of both threads and patches that are applied to banknotes. By using sophisticated electron beam and sputtered deposition methods Nanotech is able to precisely control the OTF construction and inherent properties providing custom tailored colour shifting solutions. An individual looking at these threads sees an obvious colour shift (e.g. green to magenta) when the thread is tilted. Sample images of the nano-optic and OTF features can be seen on the Company’s website at: [www.nanosecurity.ca](http://www.nanosecurity.ca).

#### *ii. Surveillance*

The Surveillance division designs and sells a wide range of sophisticated surveillance and intelligence gathering equipment and conducts surveillance training for the law enforcement and defense industries in the United States and Canada. These products include outfitting surveillance

vans for undercover operations and services include teaching accredited classes in electronic surveillance. The Surveillance division conducts its research, production and training at its facility in Holmes, PA, USA.

The Surveillance division has successfully developed the P-25 digital transmission system allowing federal, state and local law enforcement agencies to communicate with each other over a single frequency using both digital and analog frequencies, and the release of the Echo 8i that converts analog audio signals to digital, enabling secure smart-phone connectivity wirelessly.

## **B. Three Year History**

**Year Ended September 30, 2015.** After the acquisition of Fortress Optical at the end of fiscal 2014 the Company has been leveraging its acquired customer base and meeting with several of the top ten banknote issuing authorities to discuss possible use of the Company's KolourOptik® technology in banknotes. During the year the Company entered into discussions with a large banknote issuing authority for increased colour shifting OTF volumes. On November 17, 2015 the Company announced it signed a Memorandum of Understanding ("MOU") with Hueck Folien, a European manufacturer, to supply colour shifting optical thin film to the banknote market. The MOU contemplates an operational agreement to collaborate in the volume production of a colour shifting security feature in OTF. The definitive commercial agreement related to the MOU is still under negotiation as of the date hereof. The OTF product is anticipated to initially be used in banknotes as threads and then expanded into other markets in the future. The KolourOptik technology was successfully applied to metal coins in a production environment at an issuing mint. The Company raised \$2.6 million through a private placement of equity units (common share and one half warrant) priced at \$1.00 to fund operations.

**Year Ended September 30, 2014.** In fiscal 2014, after completing the acquisition of its core nanotechnology at the end of 2013, the Company focussed on commercializing the technology. During the spring of 2014 the Company successfully demonstrated the commercialization of its nanotechnology KolourOptik product at the TED2014 and TEDActive 2014 conferences held in Vancouver, BC. The Company also expanded its management team, adding Troy Bullock as the Company's Chief Financial Officer, and completed the acquisition of Fortress Optical in September 2014, (further described below) which provides the Company with sales channels, the ability to manufacture OTF, and industry capability including Mr. Iginatius (Igi) LeRoux an experienced executive in the banknote security products industry. Concurrent with the Fortress Optical acquisition, the Company raised \$10.2 million through a private placement of equity units (common share and one-half warrant) priced at \$1.50.

**Year Ended September 30, 2013.** In fiscal 2013, the Company focussed primarily on further development of its nano-optic technology. In November of 2012 the initial nano-optic patent (US 8,253,536) was granted (and is currently held by SFU subject to the Company's exclusive license). In addition to claiming the use of nano-technology as a security feature, the US patent also makes other nanotechnology claims including the ability to harvest and store energy and to display an image using nano-optics. To date, the focus of the Company has been on developing the "display" applications and this focus has led to further patents for displaying 3D, high-definition and animated images using nano-optics. The Company established new corporate offices in the Lake City area of Burnaby, BC in a secure facility located near SFU, which included more than 2,000 square feet of dedicated laboratory space. In August 2013 the Company announced its intention to acquire from certain insiders two private corporations IDIT Technologies Inc. ("IDIT") and IDME Technologies Inc. ("IDME"), from which the Company had been sublicensing its nanotechnology, and concurrently raised \$4.2 million through a private placement of equity units (common share and warrant) priced at \$0.80.

Over the past three fiscal years to September 30, 2015 the Company's nano-optic business was expenditure based and focused on the R&D of nanotechnology based anti-counterfeiting and product authentication solutions. Since late 2009, the Company has expended approximately \$8.2 million in R&D on this technology. These amounts have been expensed as incurred. The Company financed its R&D primarily from funds raised by private placement sales of its equity shares as well as some Canadian and other government R&D program funding. Nanotech holds an exclusive worldwide license to the nano-optic (and other) technology in all fields, subject to a 3% sales royalty in favour of SFU.

The Surveillance division's business involves designing and manufacturing sophisticated vehicle and personnel surveillance, tracking, monitoring and intelligence gathering communications and forensic equipment. This equipment is sold mainly to US federal agencies like the Drug Enforcement Authority and Federal Bureau of Investigation. This business has been operated by the Company for over 20 years with relatively stable revenues in the \$2 million per year range. The last three years have not seen any significant developments or changes in this business although some new products have been developed which will likely keep the revenue relatively stable.

### **C. Significant Acquisition**

#### *Fiscal 2014 - Acquisition of Fortress Optical Features Ltd.*

On September 16, 2014 pursuant to a share and loan purchase agreement (the "Purchase Agreement") with an arm's-length vendor, the Company completed a transaction to acquire 100% of the issued and outstanding shares of Fortress Optical, a producer of OTF used as security threads in banknotes in several countries.

The Purchase Agreement also required that Nanotech enter into: (i) a lease agreement whereby a majority of the Thurso building is leased to an affiliate of the vendor for up to 10 years, (ii) a shared services agreement whereby Nanotech and an affiliate of the vendor will share certain utility and security services, and (iii) a security features supply agreement whereby another affiliate of the vendor which is a speciality paper company will have the right to purchase security feature products from Nanotech on a most favoured customer basis, subject to certain minimum purchase commitments. A Business Acquisition Report (form 51-102F4 or "BAR") was filed at [www.sedar.com](http://www.sedar.com) on December 22, 2014. The BAR contains detailed financial information about Fortress Optical operations and the effect of its pro forma combination with the Company.

The acquisition of Fortress Optical is intended to serve as a platform to accelerate the further commercialization of the Company's nano-optic security feature products through (i) Fortress Optical's existing sales channels, and (ii) developing new products integrating the nano-optic products into the OTF product line. Fortress Optical was legally amalgamated into Nanotech on October 1, 2014.

## **5. CURRENT BUSINESS OPERATIONS**

### **A. Overview**

The Company's goal is to develop next-generation anti-counterfeiting features for banknotes and lever off of these developments into other government documents and the commercial brand protection space. The nano-optic security features were developed in-house at the Burnaby facilities over the last six years after the Company secured license rights to certain nanotechnology developed at SFU. An existing OTF business (Fortress Optical) was acquired in September 2014 to provide a platform to both expand the OTF business and to accelerate the further commercialization of nano-optic security features.

Over the past three years, the Company has successfully demonstrated proof-of-concept of its nano-optic technology which it markets under the name KolourOptik. KolourOptik technology had one commercial application in 2014 and has been shown to be compatible with large scale manufacturing techniques through trials by independent third parties. These tests produced three rolls of several hundred thousand images with virtually no degradation of image quality in the final images produced vis a vis the first images.

The Security Features division current operations is focussed on expanding the OTF banknote thread business and integrating that business with the nano-optic security feature products. The Company is currently supplying banknote security OTF “threads” (metallic colour shifting threads woven into banknotes) to a number of international banknote issuing authorities. The Company is also developing techniques to combine traditional OTF threads with its newly developed nano-optic features so that in addition to the colour shifting properties, the threads will contain multi-colour images. These images can be familiar such as totem poles or may include portraits of specific people. The nano-optic and OTF business is perceived by management to have significantly greater growth potential relative to the Surveillance division.

The Surveillance division, known as Tactical Technologies, operates through a US subsidiary and is headquartered in Holmes, PA. Tactical designs and sells a wide range of sophisticated surveillance and intelligence gathering equipment and conducts surveillance training for the law enforcement and defense industries mostly in the United States, but also used in Australia, United Kingdom and Canada. The operations of the Surveillance division is subject to a large number of United States and foreign laws governing production and deployment of covert surveillance equipment. Tactical has only a small niche position within a multi-billion dollar law enforcement and security industry supply business. Tactical relies on innovation and customer service to secure its niche therefore a discussion of Tactical’s competitors, many of which are large international industrial giants, is not meaningful.

In the fiscal year ended September 30, 2015, \$3.1 million (2014 \$80,000) in revenue was derived from the Security Features division and \$2.1 million (2014 \$2.1 million) in revenue was derived from the sale of law enforcement equipment by the Surveillance division. Going forward the Company expects the majority of its revenue growth will derive from the Security Features division. The Surveillance division revenue is from the sale of law enforcement equipment direct to end-users, whereas the Security Features division revenue represent R&D contracts and the sale of OTF products that can be direct or to intermediaries such as banknote printers or convertors who convert the rolled OTF sheets into threads suitable for insertion or attachment to banknotes.

The Company carries out its nano-optic research and development activities at its Burnaby head office and 4D LABS research and nanofabrication facility located at SFU, near the Company’s head office. OTF R&D is also conducted at the Thurso, QC OTF manufacturing facilities. The Company currently has 42 full time employees, of which 10 full-time employees work out of the Burnaby office, 18 work out of the Thurso facility, and 14 work in the Surveillance division located in Holmes, PA.

Overall, the Company has received approximately \$17.9 million in equity funding over the last three fiscal years. The acquisition of Fortress Optical involved a secured vendor take-back note of \$3 million due September 16, 2017. The Company had approximately \$3 million in working capital as at September 30, 2015.



## B. Banknote Market Information

Despite increasing use of credit cards as a share of the dollar value of transactions, the number of banknotes produced worldwide each year continues to grow as cash continues to be the dominant form of exchange for many smaller, daily transactions. The annual production of banknotes in 2014 was approximately 165 billion. (*Source – Secura Monde International*) The top 10 banknote users represent 56% to 71% of the market and are shown as follows:

	<u>Country</u>	<u>Banknotes per annum</u>
1)	China	50 to 60 billion
2)	India	12 to 22 billion
3)	United States	6 to 7 billion
4)	European Central Bank	6 to 7 billion
5)	Brazil	4 billion
6)	Indonesia	4 billion
7)	Philippines	4 billion
8)	Russia	3 to 4 billion
9)	Mexico	2 to 3 billion
10)	Nigeria	2 to 3 billion

(*source – Secura Monde International 2014*)

A banknote can contain several security features. As an example, the US \$20 banknote contains some 27 separate security features, including watermarks, speciality inks, hidden images, inserted strips and several others. Based on the number of banknotes being issued annually, with an estimated average of 10 security features per banknote, and an estimate of the average licensing rate for security features of \$1.25 per thousand, the Company estimates the current banknote security feature market expressed in potential revenue is approximately \$2 billion per year.

## C. OTF Security Features

The Company's OTF Security Features division manufactures and markets OTF products for insertion into both paper and polymer-paper composite banknotes. OTF is used in colour shift security threads that are currently incorporated in various countries' currency denominations. These threads are inserted into banknote paper during the paper manufacturing process, producing threads that are overt and change colour when tilted. The fact that these threads are inserted into paper makes for a very strong security feature not easily replicated. The Company targets the sales of these products directly into the banknote industry, to government issuing authorities, and to convertor suppliers (commonly known as channel partners) that will sell to the paper mills, or to issuing authorities of various countries.

The OTF division operates out of an approximately 3,250 m<sup>2</sup> (35,000 ft<sup>2</sup>) highly secure production and R&D facility in Thurso, QC, near Ottawa, Canada. The highly secure Thurso facility is self-contained within its 9,286 m<sup>2</sup> (100,000 ft<sup>2</sup>) building, located on 4.45 Hectares (11 Acres) and is owned by the Company but has a \$3 million vendor take-back mortgage. The facility houses two large vacuum deposition machines which have a combined annual output of approximately 2.4 million m<sup>2</sup> (25.8 million ft<sup>2</sup>) of OTF. With the recently announced Hueck Folien MOU the total capacity will increase to 6.5 million m<sup>2</sup> (70 million ft<sup>2</sup>) and with further equipment upgrades (at an estimated cost of approximately \$5 million) the output could be increased to as much as 10 million m<sup>2</sup> of OTF per year. OTF is produced on rolls and sent to an intermediary convertor which processes the rolled sheets into threads and into patches which are then sent to a banknote printer for insertion into, or attachment to, banknotes.

In 2015 the Company received security feature development contracts from three major currency issuing authorities that could lead to an expanded development program and future commercial contracts for implementation of security features on banknotes.

#### **D. OVD Security Features**

OVD features may have overt (visible) or covert (invisible but machine recognizable) aspects. The Company estimates that the market for OVDs is in the range of \$2.5 billion annually, of which about half is for branded commercial products and one-third for government security documents such as passports, identification documents such as drivers' licenses, military and police identification, as well as other security, restricted access and the like. The final one-sixth of the estimated market size relates to OVD as security features on banknotes (see banknote market information above). (*Source Secure Monde International*)

The Company believes that its KolourOptik OVDs can compete with holograms in virtually all applications where holograms are currently used. KolourOptik OVD technology advantages over hologram technology include a lower cost per application and 3D display of colour images. Colour shifts in hologram images are not as easily controlled as KolourOptik images. Nano-optic images also employ a greater palette of colours and can be made to appear animated. In addition, KolourOptik images and the stamping dies that produce them have a very low aspect ratio (height of die features or depth of nano-hole contour) allowing for higher production yields and better longevity.

The Company's first commercial order for KolourOptik images was a participant identity authentication badge which was developed for use at the TED2014 and TEDActive 2014 conferences held in Vancouver. A KolourOptik image "TED 30" was integrated as a security feature on each participant's ID badge for both events, making the badges instantly recognizable as an authentic TED ID badge. The Company's current target markets include governmental banking authorities, banknote printers, governmental agencies concerned with document security such as passports, as well as corporations who have valuable brands to protect. The Company believes that its nano-optic security features can also be used for marketing and brand enhancement purposes due to the strikingly vivid and intense high definition effects when applied as a corporation's proprietary brand logo and embossed onto commercial packaging or directly onto products.

#### **E. Intellectual Property**

As part of the Company's strategy to bring to market new and innovative products it has prioritized and significantly invested in securing intellectual property ("IP") around its licensed technology, core research and discoveries. As a result, the Company continues to increase its portfolio of issued and pending patents for its technologies. The Company's IP portfolio covers multiple aspects of our technology from OTF filters, processes for creating nano-hole master dies, ultra-violet inks to processes in compressible colour shifting. The Company's portfolio is not limited to its patents and patent applications, it also includes know-how and trade secrets, which protects certain characteristics of the Company's technology. The Company has secured certain IP rights on discoveries it believes to be commercially useful and in countries where it is worthwhile to seek such protection.

The Company has two areas of patents and patent applications; colour shifting OTF and nanotechnology. These two areas are divided further into patent families covering various aspects of our technologies. There are five and eight patent families respectively. The IP includes patents and patent applications for processes as well as technology. The IP rights include certain non-core technologies which were acquired

with the SFU License described below. The Company reviews these from time to time with a view to determining if they can be sublicensed.

In the colour shifting OTF patent families the Company owns three issued patents, four patents which are about to issue, and 10 published patent applications in four countries. In the nanotechnology patent families the Company owns or controls seven issued patents, 21 published patent applications and has recently entered, with 12 applications, the national phase of the international PCT (patent cooperation treaty) patenting process, where the Company received favourable reviews of its applications related to nanostructure arrays. Coverage for these families is in nine countries including European patents which encompasses 37 countries.

The Company holds an exclusive license for its principal nanotechnology IP pursuant to a License and Commercialization Agreement dated September 14, 2009 with Simon Fraser University (“SFU License”). In 2014 the Company introduced its products containing this licensed technology to the marketplace and has offered it for sale or use and is now entitled under the SFU License to transfer the registered title of the patents and patent applications to the Company. The Company will continue to be obligated to pay an ongoing 3% royalty to SFU from the gross sales of any products which contain the licensed technology and any “improvements” thereto (as defined in the SFU License) for the life of the patents and any improvements. A copy of the SFU License has been filed at [www.sedar.com](http://www.sedar.com) concurrently herewith.

The Company believes that there are opportunities to acquire and develop new technologies that could enhance shareholder value. As a result, the Company may acquire complementary patents within its areas of expertise that it believes might materially enhance shareholder value.

The Company is also in the process of securing trademark protection to the exclusive use of KolourOptik® and Plasmogram™ for use with commercial products.

There can be no certainty that any of these patent or trademark applications will ultimately issue as filed, or in any other significant way. The ability to maintain its current intellectual property rights and develop further protections are dependent on the Company’s access to specialized human resources, patent and trademark counsel, and capital.

## **F. OTF Products**

Optical thin film products the Company produces include:

- multi-layer colour shift technology for use as a windowed security thread;
- ultraviolet (UV) and infrared (IR) responsive materials; and
- multi-layer colour shift technology produced for surface device application in either a cold or hot foil application.

Optical thin film uses three primary raw material components, all of which are readily available from a number of secure sources. Prior to acquisition by the Company, Fortress Optical undertook a development project to substitute the single most expensive component, which was the di-electric material that produces the colour mobility with a less expensive material. Initial test results indicated a simple substitution was possible. The Company is continuing research in this area with a goal to realize potential further savings in material costs.

Core research and development projects for OTF include development work aimed at lowering production costs and research and development on new, innovative optical films for security device applications. The

Company's highly secure Thurso facility has two large vacuum deposition roll coating machines along with converting equipment to produce finished OTF. The facility also has an on-site laboratory for analysis, formulation, and fabrication of security films and devices.

The Company is presently working on the development of next generation OTF including: (i) colour shift with content (such as text or image); (ii) compressible colour shift; and (iii) two-component colour shift surface applied features. The Company is also working on the development of optical thin film for incorporation into polymer substrates as well as the development of lower-cost methods for applying colour shift materials as 'patches' or 'stripes' to substrates.

The production process of OTF includes a number of internally produced and adapted manufacturing processes. These allow for the production of a very well controlled and consistent colour shift material. Operations are all housed in the new, state-of-the-art high security facility. All staff at the facility are security-cleared and operate in a controlled access, high security environment.

## **G. OVD Products**

The Company's goal for its nano-optic technology is to integrate it into its OTF products. The Company believes there are many other potential commercial applications for this technology, however some of the specific products and services which may eventually be offered for sale, are not currently known. The Company believes that it is likely that its initial commercial product offerings will be a combination of custom design and production of nano-optic master wafer dies for use in creating mass produced nano-optic images for insertion into other high value items such as luxury goods or pharmaceuticals together with intellectual property licenses for the use of the master wafer dies.

In general, a master wafer is a stamp or die made of metal or other hard material typically of a few centimetres square in size. The wafers are capable of embossing (imprinting) arrays of nano-scale holes onto a variety of substrates such as polymer films and metal, often using conventional printing equipment. The embossed holes capture and refract light to create visual images with intense high definition colours. A typical master wafer will contain inverse nanostructures, i.e. nano-scale pillars, in order to produce nano-scale holes, when embossed onto substrates.

The Company's nano-optic designs can range from simple shapes, designs, or logos to more complex images. The Company's technical team has developed designs which consist of multi-frame images superimposed on a single die to create the appearance of image animation (e.g. a wheel turning or a figure walking). The Company believes that its nano-optic images reflect a next-generation of image-based security features and that they have a number of advantages over competing technologies such as holograms. These advantages include images which are created in a single print (as opposed to multiple overlapping layers for holograms) and are directly embossed onto substrates so will not separate from the surface like some holograms. In addition, the nano-optic technology produces intense high definition colours (the brightness of LED light emitting diode), dramatic colour shifts, colour on-off shifts and apparent motion (animation) effects that have not been achieved to-date with holograms.

The Company's nanotechnology has been developed by scientists and engineers with high levels of research and technical skills. Three of the Company's employees hold doctorate degrees with special materials knowledge as well as programming skills related to the electron beam machinery. This programmable machinery creates the nano-scale holes in arrays based on algorithms which determine the shape, colour, image shifts, and other aspects of the desired master wafer. The Company has developed much of this specialized skill internally and its senior technical employees will remain important to its development for the foreseeable future.

The Company's KolourOptik nanotechnology exploits a property of electro-magnetic waves known in physics as the "surface plasmonic" effect. The plasmonic effect can be induced or seen in several circumstances in the lab and in nature. In the case of the Company's nano-optics, it results when light waves strike a surface which has been contoured by embossing comprised of hundreds of millions of nano-scale holes onto the substrate from a wafer die. These "nano-holes" are too small for the light-waves to be absorbed but are physically significant enough to manipulate the light-waves. The light-waves striking the nano-holes refracts due to the plasmonic effect, which presents as vibrant colour combinations formed into discernible shapes and images which scintillate from the surface. This effect is seen in nature on the wings of the Blue Morpho butterfly with its bright deep blue iridescent colour. This blue colour is created without the presence of colour pigments or dyes, but simply by means of the optical properties of the wing surface containing nanostructures. Under electron microscope magnification, the similarity between the Morpho wing and a KolourOptik image surface is obvious (see images on [www.nanosecurity.ca](http://www.nanosecurity.ca)).

The density of nano-holes created in the substrate materials is approximately 10 times greater than the density of nano-holes found on the Blue Morpho butterfly. Working through programmable ion-beam machinery in the nano-scale allows for precise tuning of the nano-hole arrays which ultimately determine the shape of the image along with its colours in the UV, visible, and infrared ranges. This results in optical structures that exhibit "*pure iHD*" (pure single light colour of intense high definition) colour effects. These effects are unparalleled by other state-of-the-art image printing or holographic technologies.

KolourOptik images are robust and can be seen in very low light conditions. They also have a unique 'image visible/not visible' mode, which eliminates the underlying shadow that is seen in holograms. Other competitive capabilities of KolourOptik technology include: fine motion/animation, colour images appearing on a transparent background, and full colour high resolution portraits and landscapes. In addition to overt features, KolourOptik features can be theoretically formulated as machine readable covert features as well as covert forensic features that are detectable only by sophisticated instruments such as electron high resolution microscopes. Metallic coatings such as gold, silver, copper and aluminum can be added for additional plasmonic spectral signals which results in enhanced optic features.

The Company believes that the potential for new products exploiting nano-optic technology is just being realized. The Company has received a number of requests to discuss potential collaboration on the development of possible products. However, these discussions have not culminated in material commercial agreements as of the date of this Annual Information Form.

## **H. Law Enforcement Equipment Products**

The Surveillance division designs and manufactures a wide range of sophisticated covert surveillance and intelligence gathering equipment including body wires, eavesdropping and tracking equipment for law enforcement agencies mostly in the United States, but also for use in Australia, United Kingdom, and Canada. The products are made and sold under the *Tactical Technologies* name.

Recent product developments include a digital transmission system allowing federal, state and local law enforcement agencies to correspond with each other over a single frequency using both digital and analog frequencies, as well as the release of a product which converts analog audio signals to digital, enabling secure, wireless smart-phone connectivity.

Tactical Technologies also runs a training academy to provide technical surveillance training to the law enforcement community. Revenues at Tactical are historically stable at approximately \$2 million annually with a small net income or loss annually. The Company is conducting a strategic review of the surveillance division and may decide to divest it.

## I. Competitive Conditions

The Company believes that it currently has lead in image nanotechnologies for use in anti-counterfeiting applications. However, the Company knows from trade conferences and industry sources that a number of competitors are pursuing research in the same or similar nano-optic space. Due to the secrecy surrounding such research it is impossible for the Company to accurately assess the state of competitors' technologies.

### i. *Optical Thin Film*

OTF security threads has either a channel to market via the security paper industry or directly to issuing authorities of various countries. The Company competes with various international OTF suppliers, including De La Rue PLC and Giesecke & Devrient GmbH who sell their products to the banknote paper market, sometimes using an affiliated paper supply company.

### ii. *Nano-optic Features*

At this stage, it is difficult for the Company to accurately evaluate the competitive landscape of its nano-optic feature products since the technology is nascent and the Company believes it is first-to-market with a product. Currently, image-based authentication solutions are largely supplied by the hologram technology industry in certain markets, therefore, it can be said that companies in this space are competitors. The Company believes that its technology is superior to holograms for several reasons including, (i) because holograms require several more sequential processes (which increase costs), and (ii) because holograms are more susceptible to counterfeiting and separation from the item onto which it is affixed. In the product authentication area, the Company will compete against other conventional authentication technologies including colour shifting inks, radio frequency identification ("RFID") tags and micro-image tags. The Company cannot yet predict if the business will be cyclical, subject to near-term obsolescence, or if it will be economically dependent on a small number of customers or unusually affected by laws. Potential market applications of KolourOptik features are believed to be significant since the technology can either be applied directly onto a finished product, or applied as a tag or label. While the banknote and currency industries remain a premium target market, other target markets include, coins, events and lottery tickets, government issued documents, luxury goods, clothing, and pharmaceuticals.

There are no material environmental specific aspects to the Company's core nanotechnology business and production of nano-optic features is carried out wholly within a stamping or printing facility. The OTF business involves vacuum deposition of vaporized metallic compounds; however, this process takes place within highly controlled, pressure resistant chambers in specialized equipment so the environmental risk is considered low.

## 6. RISK FACTORS

The Company is subject to a number of risks and uncertainties that can significantly affect its business, financial condition and future financial performance. The Company seeks to identify, manage, and mitigate risk, wherever possible. The risks and uncertainties described below are not necessarily the only risks the Company faces nor are they necessarily in order of magnitude.

**Commercial Acceptance of a New Technology.** The Company has commercialized a leading edge, disruptive technology which, while showing great potential to be a competitor to holograms and in other applications, it will need to achieve further acceptance at a price which allows the Company to generate profits. It is hard to displace established technologies and there is no assurance that KolourOptik

technology will be a commercial success or that the Company's OTF business will generate sufficient sales to achieve profitability.

**History of Operating Losses and Negative Cash Flow.** The Company has incurred substantial losses since its inception and is expected to continue to incur losses and experience negative cash flow for the near to intermediate term. Nanotech cannot predict if or when it will operate profitably or generate positive cash flows or if it will be able to implement its business strategy successfully. Pursuing its business strategy requires the Company to incur significant expenditures for research and product development, marketing, and general administrative activities. As a result, the Company needs to continue to grow its revenues and gross margins to achieve and sustain profitability and positive operating cash flow, and it may likely need to raise additional capital which will be dilutive to the equity of current shareholders.

**Financing Arrangements.** Execution of the Company's business plan and its commercial viability could be jeopardized if the Company is unable to raise additional funds for product development, to fund working capital, R&D projects, sales and marketing activities, and other business opportunities. The Company attempts to mitigate this risk by generating funds from a variety of sources including: through the sale of common share equity, government funding, collaboration partners, vendor financing and revenues from its commercial products. If the cash generated from the Company's business continues to be insufficient to fund future capital requirements, the Company will require additional financing. The Company's ability to access capital markets on terms that are acceptable will be dependent on prevailing market conditions, as well as the Company's future financial condition. Although the Company does not have any specific reason to anticipate unusual difficulties in raising funds in the future, there can be no assurance that capital will be available on commercially reasonable terms or at all.

**Reliance on Government Contracts.** Many of the Company's customers and potential customers are government bodies. Changes in government policies, priorities or regulations, or funding levels through agency or program budget reductions, the imposition of budgetary constraints or the lack of government appropriations or the delay and/or deferment in governmental contract approvals or in government programs could have a material adverse effect on the Company's financial condition, results of operations or future growth. A decline in governmental support and funding for programs in which the Company or its customers participate could result in contract terminations, delays in contract rewards, the failure to exercise contract options, the cancellation of planned procurements and fewer new business opportunities, any of which could have a material adverse effect on the Company's financial condition and results of operations.

**Product Liability and Contract Performance.** The Company sells complex products that can contain defects in design or manufacture. Defects may also occur in components and products that the Company purchases from third parties. The Company employs sophisticated design and testing processes. However, there can be no assurance that the Company's products will pass required acceptance criteria or if it passes inspection it is possible it may later be discovered to have latent defects. There can be no assurance that the Company will be able to detect and fix all defects in the products it sells. Failure to do so could result in lost revenue, harm to reputation, and significant warranty and other expenses, and could have a material adverse impact on the Company's financial condition and operating results. In addition, a failure with respect to any product may adversely affect the perception by the Company's customers of the quality of its products and may materially and adversely affect the Company's ability to win new contracts.

**Acquisitions.** The Company has in the past and may continue to expand its operations and business by acquiring additional businesses, products or technologies. There can be no assurance that the Company will be able to identify, acquire, obtain the required regulatory approvals, or profitably manage additional

businesses or successfully integrate any acquired businesses, products or technologies into the Company without substantial expenses, delays or other operational, regulatory, or financial problems. Furthermore, acquisitions may involve a number of additional risks, including diversion of management's attention, failure to retain key personnel, unanticipated events or circumstances and unidentified pre-closing liabilities and other legal liabilities, some or all of which could have an adverse effect on the Company's business, results of operations and financial condition. In addition, there can be no assurance that acquired businesses, products or technologies, if any, will achieve anticipated revenues and income growth. Acquisitions could also result in potentially dilutive issuances of equity securities. The failure of the Company to manage its acquisitions strategy successfully could have a material adverse effect on the Company's business, results of operations and financial condition.

**Fixed Costs.** The Company requires a staff of specialized personnel, as well as specialized manufacturing and test facilities, in order to perform under its contracts. In order to maintain its ability to compete, the Company must continuously retain the services of a core group of specialists. This decreases the Company's flexibility to reduce workforce costs in the event of a slowdown or downturn in its business. In addition, the manufacturing and test facilities that the Company owns or leases under long-term agreements are fixed costs that cannot be adjusted quickly to account for significant variances in production requirements or economic conditions.

**Dependence on Key Personnel.** The success of the Company is largely dependent on the abilities and experience of its executive officers and other key personnel. Competition for highly skilled management, technical, research and development and other personnel is intense in the Company's industry. There can be no assurance that the Company can retain its current executive officers or key personnel or attract and retain additional executive officers or key personnel as needed. The loss of certain executive officers or key personnel could have an adverse impact upon the Company's growth, operations and profitability.

**Technological Change.** The banknotes, branding and surveillance equipment markets in which the Company operates are characterized by changing technology and evolving industry standards. The Company's actual and planned products embody complex technology and may not always be compatible with current and evolving technical standards developed by others. Failure or delays by the Company to meet or comply with the requisite and evolving industry or user standards could have a material adverse effect on the Company's business, results of operations and financial condition. The Company's ability to anticipate changes in technology, technical standards and the needs of the industries it serves or proposes to serve will be a significant factor in the Company's ability to compete or expand into new markets.

**Retention of Markets and Development of New Product Offerings.** The Company may experience design, manufacturing, marketing and other difficulties that could delay or prevent the development, introduction or acceptance of new products and enhancements. There can be no assurance that the Company will be able to anticipate and achieve the technological advances necessary to remain competitive and profitable, that new products or enhancements will be developed and manufactured on schedule or on a cost-effective basis or that the Company's existing products will not become technologically obsolete. The Company's failure to accurately predict the needs of current and prospective customers, and to develop products or enhancements that address those needs, may result in the loss of current customers or the inability to secure new customers.

**Significant Competition.** Almost all of the Company's competitors are larger and have substantially greater resources than the Company. Furthermore, it is possible that other domestic or foreign companies or governments, some with greater experience in the industry in which the Company operates and many with greater financial resources than the Company possesses, could seek to produce products that compete



with the Company's products, including using new technology which could render the Company's products less competitively viable. Some of the Company's foreign competitors may benefit from subsidies or protective measures by their home countries. Furthermore, government agencies may at any time decide to perform similar work as the Company either for themselves or for other government agencies, effectively competing with the Company. The Company's financial performance is dependent on its ability to generate a sustainable order rate for its manufacturing operations. This can be challenging and may fluctuate on an annual and quarterly basis as the number of contracts awarded varies and is difficult to predict. There is also competitive pressure on pricing and other material contractual terms, such as those allocating risk between the manufacturer and its customers.

**Intellectual Property Rights.** To protect the Company's proprietary rights, the Company relies on a combination of patent protections, copyrights, trade secrets, trademark laws, confidentiality and assignment-of-invention agreements with employees and third parties, and protective contractual provisions such as those contained in licence agreements with consultants, subcontractors, vendors and customers. Despite these efforts, the Company's intellectual property rights may be invalidated, circumvented, challenged, infringed or required to be licensed to others, which could have a material adverse effect on the Company's business, financial condition or operating results. An infringement or misappropriation could harm any competitive advantage the Company currently derives or may derive from its proprietary rights. Litigation may be necessary to enforce or protect the Company's intellectual property rights, protect its trade secrets or determine the validity and scope of the proprietary rights of others. Such litigation may be time-consuming and expensive to prosecute or defend and could result in the diversion of the Company's time and resources. If any of the Company's technology violates proprietary rights, including copyrights and patents, third parties may assert infringement claims against the Company. Any claims from third parties may also result in limitations on the Company's ability to use the intellectual property subject to these claims. The Company may be required to redesign its products or obtain licences from third parties to continue offering the Company's products without substantially re-engineering such products or defending itself and its customers against infringement claims and liability for damages. This may affect the Company's operations and, in addition, the Company could suffer substantial costs in defending itself against infringement claims.

**Economic and Political Conditions.** Customer demand for the Company's products may be affected by economic and political conditions on an international, country, and/or regional level. For example, changes in interest rates, foreign exchange rates, credit availability, the level of government spending, the cyclical nature of the market, and political decisions may adversely influence the Company's sales or the Company's ability to access certain funding.

**Security Environment.** Many of the Company's customers have specific security requirements relating to the work that can be performed for it. These requirements can change quickly and with little notice causing reduction or even elimination of potential work for the Company and the ability of the Company to participate in future business. Any reduction or elimination of work could have an adverse effect on the revenues and margins of the Company.

**Insurance.** The Company maintains an extensive program of insurance coverage in the normal course of business, consistent with similar businesses. In addition, the insurance program covers some of the unique risks encountered by the Company. Although the limits and deductibles of such insurance have been established through risk analysis and the recommendation of professional advisors, there can be no assurance that such insurance will remain available to the Company at commercially reasonable rates or that the amount of such coverage will be adequate to cover all liability incurred by the Company. If the Company is held liable for amounts exceeding the limits of its insurance coverage or for claims outside

the scope of that coverage, its business, results of operations and financial condition could be adversely affected.

## 7. DIVIDENDS AND DISTRIBUTIONS

The Company has never paid a cash dividend or other distribution nor does it intend to do so in the foreseeable future. Any return on an investment in Nanotech's common shares will depend on any future appreciation in their value.

## 8. SHARE CAPITAL

The Company's share capital consists of an unlimited number of common shares and an unlimited number of preferred shares. As at April 26, 2016, the Company had an aggregate of 53,612,216 issued and outstanding common shares and no issued and outstanding preferred shares. The Company also has an aggregate of 2,153,000 share purchase options granted with an exercise price of \$0.80 to \$1.75 per share, which have expiry dates ranging from two to five years, 688,100 restricted share units that vest over the next three years, and 1,327,500 warrants with an exercise price of \$1.50 per share which have an expiry date of February 26, 2017.

Each common share entitles the holder thereof to one vote at all meetings of shareholders, other than meetings of the holders of another class of shares. The common shares carry no special rights or restrictions. There are no constraints imposed on the ownership of the securities of the Company nor does the Company have any required minimum level of Canadian resident ownership. The Company's securities are not rated.

## 9. MARKET FOR SECURITIES

### A. Trading Price and Volume

The Company's shares are traded on the TSX Venture Exchange ("TSXV") under the ticker symbol NTS and is listed on the OTCQX marketplace in the United States under the ticker symbol NTSFF. The following table sets forth the TSXV monthly share prices and volumes of trading of the common shares by month since October 1, 2014.

<b>October 1, 2014 - March 31, 2016</b>	<b>Monthly Volume (#)</b>	<b>Monthly High (\$)</b>	<b>Monthly Low (\$)</b>
October 2014	313,700	1.61	1.22
November 2014	428,900	1.70	1.20
December 2014	473,900	1.59	1.23
January 2015	405,900	1.30	1.07
February 2015	629,800	1.17	1.00
March 2015	429,900	1.05	0.87
April 2015	418,100	1.44	0.95
May 2015	360,900	1.25	1.15

June 2015	294,200	1.24	1.09
July 2015	211,600	1.16	0.99
August 2015	580,000	1.25	0.95
September 2015	503,100	1.40	1.12
October 2015	1,041,900	1.33	1.14
November 2015	2,246,000	1.45	1.08
December 2015	1,092,900	1.44	1.16
January 2016	453,777	1.29	1.07
February 2016	383,094	1.25	1.01
March 2016	756,705	1.29	1.09

## B. Escrowed Securities

In connection with the acquisition of Fortress Optical in September 2014, described in Item 4 under “Significant Acquisitions” the Company issued 3,000,000 common shares to the vendor held in escrow, to be released based on certain milestones over up to a five year period.

On July 17, 2015 the Company entered into an amending agreement with the parent company of the vendor whereby 1.5 million shares were released from escrow and the remaining 1.5 million escrowed shares were cancelled and returned to treasury. The 1.5 million shares released from escrow were subject to a pooling agreement for a period of 90 days, which expired on October 15, 2015. Accordingly, as of April 26, 2016 none of the Company’s shares were held in escrow or subject to a pooling agreement.

## 10. DIRECTORS AND OFFICERS

The following disclosure sets out the names of the Company’s directors and officers as at April 26, 2016, the period of time during which each has been a director and/or officer of the Company, principal occupation in the past five years, and the number of Common Shares of the Company beneficially owned by each person, directly or indirectly, or over which each exercised control or direction as at the date hereof:

Position with the Company Province and Country of Residence	Period as a Director or Officer of the Company	Principal Occupation in the Past Five Years	Common Shares Beneficially Owned or Controlled
Douglas H. Blakeway President, Chief Executive Officer and Director British Columbia, Canada	Since May 4, 1984	June 2012 to Present – CEO, Nanotech Security Corp. Sept. 2006 to June 2012, Managing Director, G4S Justice Services (Canada) Inc.	5,777,234 10.8% of issued and outstanding shares
Kenneth R. Tolmie <sup>(1)(2)</sup> Director British Columbia, Canada	Since April 15, 1987	Semi-retired businessman, September 2004 to Present – part-time Chief Financial Officer, Aprio Inc.	530,982 1.0% of issued and outstanding shares

<b>Position with the Company Province and Country of Residence</b>	<b>Period as a Director or Officer of the Company</b>	<b>Principal Occupation in the Past Five Years</b>	<b>Common Shares Beneficially Owned or Controlled</b>
Bernhard J. Zinkhofer <sup>(2)</sup> Director British Columbia, Canada	From April 15, 1993 to July 23, 2004 and since February 15, 2007	1991 to Present – Partner, McMillan LLP, lawyers	801,771 1.5% of issued and outstanding shares
Brian Causey <sup>(1)</sup> Director British Columbia, Canada	Since October 27, 2009	August 2015 to Present – CFO, The CFO Centre 2001 to August 2015 – VP, Project Finance, Hunter Dickinson Inc.	10,125 .02% of issued and outstanding shares
Bozena Kaminska <sup>(1)</sup> Director British Columbia, Canada	Since March 23, 2011	2005 to Present – Professor, Simon Fraser University	2,751,119 5.1% of issued and outstanding shares
Dickson Hall <sup>(2)</sup> Director British Columbia, Canada	Since July 14, 2015	2005 to Present – Senior VP, Corporate Development, Hunter Dickinson Inc. 2000 to Present – President – Dickson Hall & Associates	10,000 .02% of issued and outstanding shares
Ron Barbaro <sup>(2)</sup> Director Ontario, Canada	Since March 29, 2016	January 2016 to Present – Director of Bardya Brokerage Services Inc. 2013 to Present – Chairman of the Board of Smart Employee Benefits Inc. 2004 to 2012 – Chairman of the Brick Group	20,000 .04% of issued and outstanding shares
Clint Landrock Chief Technology Officer British Columbia, Canada	Since March 23, 2011	May 2015 – Present – Chief Technology Officer, Nanotech Security Corp. April 2013 to May 2015 – VP, Products, Nanotech Security Corp. Oct. 2012 to April 2013 - Chief Technology Officer, IDME Technologies Corp. Sept. 2007 to Sept. 2009 – Consultant, self-employed	1,498,008 2.8% of issued and outstanding shares
Troy Bullock Chief Financial Officer and Corporate Secretary British Columbia, Canada	Since June 25, 2014	June 2014 to Present – CFO, Nanotech Security Corp. Sept. 2013 to June 2014 – Principal, CIM Group Dec. 2010 to Sept. 2013 – CEO, Stormtech Performance Apparel Ltd. Dec. 2008 to Dec. 2010 – Managing Director, Deloitte & Touche LLP	50,000 .09% of issued and outstanding shares

<b>Position with the Company Province and Country of Residence</b>	<b>Period as a Director or Officer of the Company</b>	<b>Principal Occupation in the Past Five Years</b>	<b>Common Shares Beneficially Owned or Controlled</b>
Ron Ridley Vice President, Operations Ontario, Canada	Since September 16, 2014	Sept. 2014 to Present – VP, Operations, Nanotech Security Corp. July 2011 to Sept. 2014 – Chief Operating Officer, Fortress Optical Features Ltd. 2009 – July 2011 – Assistant Director, Currency OSM Team, Bank of Canada	5,000 .009% of issued and outstanding shares
Iginatius LeRoux Chief Business Development Officer Virginia, United States of America	Since September 16, 2014	Sept 2014 to Present – Chief Development Officer, Nanotech Security Corp. July 2011 to Sept. 2014 – Chief Executive Officer, Fortress Optical Features Ltd. Jan. 2001 to July 2011 – Technical Director, Secura Monde International	39,500 .07% of issued and outstanding shares

Notes: The information as to principal occupation, business or employment and shares beneficially owned or controlled is not within the knowledge of the management of the Company and has been furnished by the respective directors/officers. The above table does not reflect options which have been granted nor Restricted Share Units granted.

- (1) Member of the Audit Committee.
- (2) Member of the Compensation Committee.

## **A. Director and Officer Biographical Information**

### ***Douglas H. Blakeway – Chief Executive Officer and Director***

Mr. Blakeway is the Company's President and Chief Executive Officer. He has over 40 years of experience in executive management in technology business development. He founded the Company in 1984. From September 2006 until June 2012 he was a consultant providing product manufacturing management services to G4S Justice Services (Canada) Inc., which purchased the Company's previous business in 2006.

Mr. Blakeway is a member of Simon Fraser University Surrey – Business Advisory Council and is an Entrepreneur in Residence SFU Venture Connection. He is a member of Canadian Listed Company Association, TEC (The Executive Committee), an international organization for CEOs, and CMC Microsystems Inc., a government body operating through the National Science and Engineering Research Council of Canada (NSERC). Since 1982, he has been a director of a number of public companies listed on the TSX Venture Exchange.

### ***Troy Bullock, CPA, CA – Chief Financial Officer and Corporate Secretary***

Mr. Bullock is a senior finance professional with more than 20 years of international experience with both public and private companies, including manufacturing, restructuring and corporate finance responsibilities. He was formerly Chief Financial Officer at Norsat International Inc. and Ascalade Communications Inc. as well as previously holding the position of Chief Executive Officer at Stormtech Performance Apparel Ltd. and in an advisory capacity at KPMG and Deloitte. Mr. Bullock is a Chartered Public Accountant and a Chartered Accountant.

***Iginatius LeRoux – Chief Business Development Officer***

Mr. LeRoux has 25 years of experience in the banknote industry where his career evolved from product research and development and industry consulting into business development. He has worked in some of the most notable companies in the banknote industry. Mr. LeRoux has been instrumental in the successful development and commercialization of a number of emerging technologies and businesses in the banknote industry.

***Clint Landrock – Chief Technology Officer***

Mr. Landrock serves as the Chief Technology Officer for the Company, and is one of the co-inventors of the Company's nano-optic technology. He is a leading scientist in the study of nano-technologies and currently holds a number patents and over a dozen publications in this area. Mr. Landrock completed his bachelor's degree in aerospace engineering at Ryerson University in Toronto and his Masters of Applied Sciences at Simon Fraser University where his research centered on nano-optics and its applications.

***Ron Ridley – Vice President, Operations***

Mr. Ridley has been involved in the security device industry for over 20 years in both public and private companies in various engineering, research & development, and management roles. He has experience in project management, operations, and manufacturing. Mr. Ridley completed his bachelor's degree in mechanical engineering at Carleton University in Ottawa and earned a master's degree in business administration at the University of Ottawa.

***Bozena Kaminska – Director***

Dr. Bozena Kaminska is a prolific inventor with major contributions to science and innovation. She is currently a Professor at Simon Fraser University's School of Engineering Science, and a Canada Research Chair (Tier 1). She holds multiple patents and has authored hundreds of peer-reviewed publications in top scientific journals. Throughout her thirty-year research career, Dr. Kaminska has actively worked on the commercialization of her laboratory research and has successfully developed five ventures from her scientific work. She serves on the board of numerous organizations and companies in Canada and the US, including as a Council Member of the National Sciences and Engineering Research Council of Canada (NSERC), as a Chair of CMC Microsystems, and is President of NanoMedia Solutions Inc.

Dr. Kaminska was the recipient of the British Columbia Innovation Council's Entrepreneurship Fellow Award in 2010. Recently, she has been elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows for her distinguished achievements in innovation and discovery.

***Brian Causey – Director***

Mr. Causey has been a Director since October 2009 and Chief Financial Officer of the Company from October 2009 to June 2014. He has held a number of senior executive positions with Curis Resources Ltd. and Hunter Dickinson Inc., specializing in and principally involved with financings, corporate reorganizations, and specialized tax planning initiatives. He is currently a Chief Financial Officer of The CFO Centre and is a Chartered Accountant.

He was formerly a director of Cascadero Copper Corporation from 2012 to 2014, Quartz Mountain Resources Ltd. from 2003 to 2011, and was a director and Chief Financial Officer of Yaletown Capital Corp. from 2007 to 2010.

***Kenneth R. Tolmie – Director***

Mr. Tolmie is the Chief Financial Officer, principal shareholder, and a director of APRIO Inc., a privately held governance information software company. He is presently a director and officer of a number of private companies and he has, in the past, held various senior executive and financial positions with Hastings West Investment Ltd., The Beacon Group of Companies, Premier Diagnostic Health Services Inc., a CNSX listed issuer and other junior companies in technology, film, and other industries.

***Bernhard J. Zinkhofer – Director***

Mr. Zinkhofer is a practicing lawyer and partner in the Vancouver office of McMillan LLP, Barristers & Solicitors and its predecessor firm since 1991. He practises in the areas of corporate securities and related commercial matters including natural resource and technology transfer. Mr. Zinkhofer obtained a Bachelor of Commerce from the University of Calgary in 1977, became a Member of the Canadian Institute of Chartered Accountants in 1980 after articling with a predecessor of KPMG; Peat Marwick Thorne and obtained a LLB from the University of Victoria in 1983. He has served as a director of Nanotech and its predecessors for most of the preceding 12 years.

***Dickson Hall – Director***

Mr. Hall has directed business development efforts in Asia since 2005 for Hunter Dickinson Inc., a Canadian-based resource group, since 2004 has been chairman of the board of directors of ACT360 Solutions Ltd., a British Columbia-based provider of online customer acquisition software and services, since 2013 has been a director of New Era Minerals Inc., a Canadian mineral exploration company with a nickel project in Xinjiang, China, is a director of MEC Advisory Ltd., and the sole manager of Can-China Global Resources Fund, a \$1 billion fund backed by the Export-Import Bank of China.

***Ron Barbaro – Director***

Mr. Barbaro is a corporate director and advisor. He is Chairman of the Board of Smart Employee Benefits Inc. since 2013 and a director of Bardya Brokerage Services Inc. since January 2016. Over the years Mr. Barbaro has held many director positions including Chairman and CEO of the Ontario Lottery and Gaming Corporation (1998-2003), Chairman of The Brick Group (2004-2012), President, The Prudential Insurance Company of America (worldwide operations) (1990-1993), and Special Advisor and Chairman of the Premier of Ontario's Economic Recovery Team (2003-2005).

**B. Cease Trade Orders and Bankruptcies**

Mr. Zinkhofer served as a director of Austral-Pacific Energy Ltd., an oil and gas company, which went into receivership and ceased operations in 2009 on account of loans and oil hedging agreements entered into prior to the time when Mr. Zinkhofer was a director. Two companies in which Mr. Zinkhofer served as a non-insider corporate secretary as part of his legal services also ceased operations due to insolvency; Inviro Medical Inc. (2010) and Great Basin Gold Inc. (2012).

Mr. Tolmie served as a director of Premier Diagnostic Health Services Inc., a Canadian company which provides advanced medical diagnostic tools. On January 31, 2012, the British Columbia Securities Commission issued a management cease trade order in connection with the delay in filing of its September 30, 2011 audited annual financial statements. The cease trade order was lifted on March 2, 2012 when the overdue statements were filed.

Mr. Hall served as a director of CY Oriental Holdings Ltd. On April 30, 2008 the British Columbia Securities Commission issued a management cease trade order in connection with CY Oriental's failure

to file its December 31, 2007 audited financial statements. On July 3, 2008, July 18, 2008, and October 3, 2008 the British Columbia Securities Commission, the Ontario Securities Commission, and the Alberta Securities Commission respectively issued cease trade orders in connection with CY Oriental's failure to file annual financial statements for its fiscal year ended December 31, 2007 and interim financial statements for the financial period ended March 31, 2008. Mr. Hall ceased to be a director on March 30, 2009.

Mr. Bullock, the Company's Chief Financial Officer served as the Chief Financial Officer and a director of Ascalade Communications Inc. a Canadian company which provided the design and manufacturing of wireless communication devices. Ascalade filed for creditor protection in 2008, restructured its business and returned \$0.16 per share to its common shareholders in late 2009.

Except as set out above and within the last 10 years, no director or executive officer of the Company was a director or executive officer of any company (including the Company in respect of which this Annual Information Form is prepared) that was:

- (a) subject to a cease trade or similar order or an order denying the relevant company access to any exemptions under securities legislation, for more than 30 consecutive days;
- (b) subject to an event that resulted, after the director or executive officer ceased to be a director or executive officer, in the company being the subject of a cease trade or similar order or an order that denied the relevant company access to any exemption under the securities legislation, for a period of more than 30 consecutive days;
- (c) within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or has become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the proposed director;
- (d) subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority; or
- (e) subject to any other penalties or sanctions imposed by a court or a regulatory body that would likely be considered important to a reasonable security holder in deciding whether to vote for a proposed director.

### **C. Conflicts of Interest**

There are no known conflicts of interest between the Company and its directors.

Dr. Kaminska, in her capacity as a professor at Simon Fraser University and as principal of a private company, NanoMedia Solutions Ltd., is engaged in researching and developing various optical and imaging aspects of nanotechnology. NanoMedia and the Company signed a letter of intent dated March 31, 2016 ("LOI") to resolve the possibility of potential conflicts of interest which might arise given both companies are active in a similar field of nanotechnology. The LOI provides that either party may obtain an independent patent opinion if it believes the other party is infringing its intellectual property ("IP"). If the independent opinion confirms a party is infringing the other's IP, then a determination will be made if the infringement is in a party's "core applications. For the Company, core applications are the use of



nanotechnology in banknote and document security features and branded commercial product anti-counterfeiting protection. For NanoMedia, core applications are commercial art and graphics and some product brand protection applications where the Company is not active.

The LOI also provides a mechanism to share future IP developments. If NanoMedia develops or serendipitously discovers nanotechnology applications which are IP improvements to the Company's core applications then NanoMedia will notify the Company so that the Company can elect to secure either an exclusive or non-exclusive license to the IP improvements to such core applications. If the Company agrees to fund NanoMedia's research and development ("R&D") costs related to the improvement IP, the Company will be entitled to an exclusive license to the improvement IP by paying a 6% royalty on the value of the licensed improvement IP included in commercial products and services which would otherwise infringe on NanoMedia's improvement IP. If Nanotech does not elect to fund NanoMedia's projected R&D costs related to developing the improvement IP, the Company will be entitled to an exclusive license on the improvement IP for a 7% royalty.

Nanotech can at any time acquire a non-exclusive license to any NanoMedia improvement IP in Nanotech's core applications by paying a 3% royalty on such sales. NanoMedia may obtain a non-exclusive license to Nanotech improvement IP in NanoMedia's core applications for a 3% royalty payable to Nanotech. Existing agreements between NanoMedia and any third parties such as Simon Fraser University is not affected by the LOI. The LOI does not derogate or diminish Dr. Kaminska's confidentiality and fiduciary obligations to Nanotech. As of the date hereof the parties and their respective counsel are in the process of negotiation of a binding definitive agreement to replace the letter of intent.

#### **D. Audit Committee**

##### ***Audit Committee Mandate***

The Board, through the Audit Committee, is responsible for the integrity of the internal control and management information systems of the Company. The Audit Committee meets at least quarterly to review quarterly financial statements and management's discussion and analysis and meets at least twice annually with the Company's external auditor. The Audit Committee discusses, among other things, the annual audit, the adequacy and effectiveness of the Company's internal control and management information systems and management's discussion and analysis and reviews the annual financial statements with the external auditor.

The Audit Committee's mandate and responsibilities are detailed in its Audit Committee Charter, and include:

- (a) assisting in the identification of the principal risks of the Company's business and, with the assistance of management, establishing procedures to ensure that these risks are monitored;
- (b) overseeing the work of external auditors engaged for the purpose of preparing or issuing an audit report or related work;
- (c) recommending to the Board the nomination and compensation of the external auditors;
- (d) approving all non-audit services to be provided by the external auditors; and
- (e) reviewing the Company's financial statements, MD&A and earnings press releases before the Company publicly discloses this information and satisfying itself that all regulatory compliance matters have been considered in the preparation of the financial statements of the Company.

A copy of the Audit Committee Charter is attached as Schedule "A" to this Annual Information Form.

### ***Composition of the Audit Committee***

The Audit Committee is comprised of three directors; Kenneth R. Tolmie (Chairman), Bozena Kaminska and Brian Causey. Each of Mr. Tolmie and Dr. Kaminska are considered independent. Mr. Causey is considered non-Independent due to his past role as the Company's Chief Financial Officer, which he resigned from in June 2014.

### ***Relevant Education and Experience of Audit Committee***

The current members of the Audit Committee either have post-secondary education or extensive business and financial experience. One member holds professional accounting accreditation. See heading "*Biographies of Nominated Directors*" in the most recently filed Information Circular available at [www.sedar.com](http://www.sedar.com). In particular, each of the members of the Audit Committee has:

- an understanding of the accounting principles used by the Company to prepare its financial statements, and the ability to assess the general application of those principles in connection with estimates, accruals and reserves;
- experience preparing, auditing, analyzing or evaluating financial statements that present a breadth and level of complexity of accounting issues that are generally comparable to the breadth and complexity of issues that can reasonably be expected to be raised by the issuer's financial statements, or experience actively supervising individuals engaged in such activities; and
- an understanding of internal controls and procedures for financial reporting.

The Board has determined that each member of the Audit Committee is "financially literate", has "accounting or related financial management expertise" and that Mr. Causey, through his Chartered Accountant designation, is an "audit committee financial expert" as defined by applicable securities laws.

### ***Audit, Audit Related and Non-audit Services***

All requests for non-prohibited audit, audit related, and non-audit services provided to the Company by its Auditor, KPMG LLP and its affiliates are required to be pre-approved by the Audit Committee. To enable this, the Company has implemented a process by which all requests for services involving the Auditor are reviewed by the Chief Financial Officer to ensure that the requested service is a non-prohibited service and to verify that there is a compelling business reason for the request. If the request passes this review, it is then presented to the Audit Committee for its review, evaluation and pre-approval or denial at its next scheduled quarterly meeting. If the timing of the request is urgent, it is provided to the Audit Committee Chair for his review, evaluation and pre-approval or denial on behalf of the Audit Committee (with the full committee's review at the next scheduled quarterly meeting). Throughout the year, the Audit Committee monitors the actual versus approved expenditure for each of the approved requests.

## **11. LEGAL AND REGULATORY MATTERS**

The Company is not currently subject to any material legal proceedings or regulatory actions nor are any threatened or believed to be pending.

## **12. INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS**

On September 27, 2013, pursuant to a share exchange agreement for a combined transaction, the Company completed the acquisition of controlling interests in two privately held British Columbia corporations, IDIT and IDME, from whom the Company had sublicensed its anti-counterfeiting technology. As

consideration the Company agreed to issue a total of 3,940,000 common shares in exchange for 100% of the issued and outstanding common shares of IDIT and 95% of the issued and outstanding common shares of IDME. The fair value of the equity shares issued was based on the market value of the Company's traded shares on September 27, 2013, the acquisition date.

Mr. Blakeway, Dr. Kaminska and Mr. Landrock had a financial interest in IDME and IDIT and were among the vendors of 3,740,000 common shares. Also, Dr. Kaminska was owed \$108,500 and Mr. Blakeway and his management company, Geni D Ventures Inc., was owed \$336,490 by the acquired companies, debts which the Company assumed on acquisition.

Included in the 3,940,000 common shares issuable were 234,897 common shares issuable subject to prior approval of the Company's disinterested shareholders as the Company did not have sufficient authorized shares at the acquisition date. At the Annual General Meeting held on April 16, 2014, the disinterested shareholders voted to approve the issuance of the shares. These shares were issued in June 2014. All common shares issued by the Company in connection with the acquisition were escrowed. The escrow allows for 25% semi-annual releases over two years from closing starting six months from closing. Since the acquisition and subsequent wind up of IDME and IDIT, Mr. Blakeway, Dr. Kaminska, and Mr. Landrock no longer have an interest in the acquired companies.

The acquisition eliminated a 6% gross revenue royalty on product sales and also resulted in the Company acquiring direct ownership of the principal nanotechnology patents, as well as ownership of additional intellectual property in related fields. The Company's products and services will now be subject to a 3% sales royalty in favor of Simon Fraser University where elements of the nanotechnology originated.

During the year ended September 30, 2013, and prior to the acquisition, the Company paid \$505,000 for research and development to IDME.

Mr. Zinkhofer, one of the directors, is a partner of McMillan LLP which serves as legal counsel to the Company. Legal fees, disbursements and taxes charged by McMillan to the Company were: \$156,515 (fiscal 2015), \$464,695 (fiscal 2014), and \$106,676 (fiscal 2013). Mr. Zinkhofer does not receive any director's fees for serving on the Board of Directors but McMillan bills for time spent.

### **13. TRANSFER AGENT AND REGISTRAR**

The Company's registrar and transfer agent is Computershare Investor Services Inc. at its principal office 510 Burrard Street, Vancouver, British Columbia, V6C 3B9.

### **14. INTERESTS OF EXPERTS**

The Company's Auditor, KPMG LLP, has prepared the Auditor's Report with respect to the consolidated financial statements of the Company for the year ended September 30, 2015. KPMG has advised that it is independent of the Company within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of British Columbia.

### ***Auditor Service Fees***

The following table is a summary of billing by KPMG LLP as auditors of the Company, during the period from October 1, to September 30:

<b>Nature of Services</b>	<b>2015 Total Fees</b>	<b>2014 Total Fees</b>
Audit Fees <sup>(1)</sup>	\$168,000	\$117,500
Audit-Related Fees <sup>(2)</sup>	Nil	Nil
Tax Fees <sup>(3)</sup>	\$39,610	Nil
All Other Fees <sup>(4)</sup>	Nil	Nil
<b>Total</b>	<b>\$207,610</b>	<b>\$117,500</b>

Notes:

- (1) "Audit Fees" include fees necessary to perform the annual audit and quarterly reviews of the Company's consolidated financial statements. Audit Fees include fees for review of tax provisions and for accounting consultations on matters reflected in the financial statements. Audit Fees also include audit or other attest services required by legislation or regulation, such as comfort letters, consents, reviews of securities filings and statutory audits. During fiscal 2015 the Audit Committee engaged the Auditor to perform additional services of reviewing the Company's second and third quarters in anticipation of a potential financing.
- (2) "Audit-Related Fees" include services that are traditionally performed by the auditor. These audit-related services include employee benefit audits, due diligence assistance, accounting consultations on proposed transactions, internal control reviews and audit or attest services not required by legislation or regulation.
- (3) "Tax Fees" include fees for all tax services other than those included in "Audit Fees" and "Audit-Related Fees". This category includes fees for tax compliance, tax planning and tax advice. Tax planning and tax advice includes assistance with tax audits and appeals, tax advice related to mergers and acquisitions, and requests for rulings or technical advice from tax authorities.
- (4) "All Other Fees" include all other non-audit services.

## **15. MATERIAL CONTRACTS**

As described in Item 5 under "Intellectual Property", the Company is subject to a License and Commercialization agreement dated September 14, 2009 with Simon Fraser University under which the Company is obligated to pay a royalty of 3% to SFU from the gross sales of any products which incorporate certain nanotechnology. The license agreement also provides for the transfer of the intellectual property, which is currently in the name of SFU, into the name of the Company.

## **16. ADDITIONAL INFORMATION**

This annual information form is qualified by the additional information which is available about the Company and its public record located at [www.sedar.com](http://www.sedar.com). This public record includes annual audited financial statements as well as quarterly unaudited financial information, in each case together with management's discussion and analysis for that most recently completed fiscal quarter. Additional information regarding directors' and officers' remuneration and securities granted under equity compensation plans will be contained in the Company's information circular for the annual general meeting to be held on March 29, 2016.

## **SCHEDULE A**

### **AUDIT COMMITTEE CHARTER NANOTECH SECURITY CORP. (the “Company”)**

#### **MANDATE**

The audit committee will assist the board of directors (the “Board”) in fulfilling its financial oversight responsibilities. The audit committee will review and consider in consultation with the auditors the financial reporting process, the system of internal control and the audit process. In performing its duties, the committee will maintain effective working relationships with the Board, management, and the external auditors. To effectively perform his or her role, each committee member must obtain an understanding of the principal responsibilities of committee membership as well and the Company’s business, operations and risks.

#### **COMPOSITION**

The Board will appoint from among their membership an audit committee after each annual general meeting of the shareholders of the Company. The audit committee will consist of a minimum of three directors. A majority of the members of the audit committee must not be officers, employees or control persons of the Company.

#### **MEETINGS**

The audit committee shall meet in accordance with a schedule established each year by the Board, and at other times that the audit committee may determine. The audit committee shall meet at least annually with the Company’s Chief Financial Officer and external auditors in separate executive sessions.

#### **ROLES AND RESPONSIBILITIES**

The audit committee shall fulfill the following roles and discharge the following responsibilities:

##### **1. External Audit**

The audit committee shall be directly responsible for overseeing the work of the external auditors in preparing or issuing the auditor’s report, including the resolution of disagreements between management and the external auditors regarding financial reporting and audit scope or procedures. In carrying out this duty, the audit committee shall:

- (a) recommend to the Board the external auditor to be nominated by the shareholders for the purpose of preparing or issuing an auditor’s report or performing other audit, review or attest services for the Company;
- (b) review (by discussion and enquiry) the external auditors’ proposed audit scope and approach;
- (c) review the performance of the external auditors and recommend to the Board the appointment or discharge of the external auditors;
- (d) review and recommend to the Board the compensation to be paid to the external auditors; and
- (e) review and confirm the independence of the external auditors by reviewing the non-audit services provided and the external auditors’ assertion of their independence in accordance with professional standards.

##### **2. Internal Control**

The audit committee shall consider whether adequate controls are in place over annual and interim financial reporting as well as controls over assets, transactions and the creation of obligations, commitments and liabilities of the Company. In carrying out this duty, the audit committee shall:

- (a) evaluate the adequacy and effectiveness of management’s system of internal controls over the accounting and financial reporting system within the Company; and
- (b) ensure that the external auditors discuss with the audit committee any event or matter which suggests the possibility of fraud, illegal acts or deficiencies in internal controls.

##### **3. Financial Reporting**

The audit committee shall review the financial statements and financial information prior to its release to the public. In carrying out this duty, the audit committee shall:

###### *General*

- (a) review significant accounting and financial reporting issues, especially complex, unusual and related party transactions; and

- (b) review and ensure that the accounting principles selected by management in preparing financial statements are appropriate.

*Annual Financial Statements*

- (c) review the draft annual financial statements and provide a recommendation to the Board with respect to the approval of the financial statements;
- (d) meet with management and the external auditors to review the financial statements and the results of the audit, including any difficulties encountered; and
- (e) review management's discussion & analysis respecting the annual reporting period prior to its release to the public.

*Interim Financial Statements*

- (f) review and approve the interim financial statements prior to their release to the public; and
- (g) review management's discussion & analysis respecting the interim reporting period prior to its release to the public.

*Release of Financial Information*

- (h) where reasonably possible, review and approve all public disclosure, including news releases, containing financial information, prior to its release to the public.

**4. Non-Audit Services**

All non-audit services (being services other than services rendered for the audit and review of the financial statements or services that are normally provided by the external auditor in connection with statutory and regulatory filings or engagements) which are proposed to be provided by the external auditors to the Company or any subsidiary of the Company shall be subject to the prior approval of the audit committee.

*Delegation of Authority*

- (a) The audit committee may delegate to one or more independent members of the audit committee the authority to approve non-audit services, provided any non-audit services approved in this manner must be presented to the audit committee at its next scheduled meeting.

*De-Minimis Non-Audit Services*

- (b) The audit committee may satisfy the requirement for the pre-approval of non-audit services if:
  - (i) the aggregate amount of all non-audit services that were not pre-approved is reasonably expected to constitute no more than five per cent of the total amount of fees paid by the Company and its subsidiaries to the external auditor during the fiscal year in which the services are provided; or
  - (ii) the services are brought to the attention of the audit committee and approved, prior to the completion of the audit, by the audit committee or by one or more of its members to whom authority to grant such approvals has been delegated.

*Pre-Approval Policies and Procedures*

- (c) The audit committee may also satisfy the requirement for the pre-approval of non-audit services by adopting specific policies and procedures for the engagement of non-audit services, if:
  - (i) the pre-approval policies and procedures are detailed as to the particular service;
  - (ii) the audit committee is informed of each non-audit service; and
  - (iii) the procedures do not include delegation of the audit committee's responsibilities to management.

**5. Other Responsibilities**

The audit committee shall:

- (a) establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters;
- (b) establish procedures for the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters;
- (c) ensure that significant findings and recommendations made by management and external auditor are received and discussed on a timely basis;
- (d) review the policies and procedures in effect for considering officers' expenses and perquisites;
- (e) perform other oversight functions as requested by the Board; and
- (f) review and update this Charter and receive approval of changes to this Charter from the Board.

**6. Reporting Responsibilities**

The audit committee shall regularly update the Board about committee activities and make appropriate recommendations.

**RESOURCES AND AUTHORITY**

The audit committee shall have the resources and the authority appropriate to discharge its responsibilities, including the authority to:

- (a) engage independent counsel and other advisors as it determines necessary to carry out its duties;
- (b) set and pay the compensation for any advisors employed by the audit committee; and
- (c) communicate directly with the internal and external auditors.