
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM 10-K

Annual report under Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2018;

or

Transition report under Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _____ to _____

COMMISSION FILE NO. 1-11602

PEN Inc.

(Exact name of registrant as specified in its charter)

Delaware

47-1598792

(State of Incorporation)

(IRS Employer Identification Number)

701 Brickell Ave., Suite 1550, Miami, Florida 33131

(Address of principal executive office, including Zip Code)

Registrant's telephone number, including area code: **(844) 273-6462**

Securities registered pursuant to Section 12(b) of the Exchange Act:

<u>Title of each class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on Which Registered</u>
Class A Common Stock, \$0.0001 par value	PENC	OTC Markets

Securities registered pursuant to Section 12(g) of the Exchange Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer

Accelerated Filer

Non-accelerated Filer

Smaller Reporting Company

(Do not check if a smaller reporting company)

Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The aggregate market value of the Common Stock held by non-affiliates of the Registrant, based upon the closing price of the Class A Common Stock on the OTCQB system on June 30, 2018 of \$1.00, was approximately \$1,526,527.

As of October 7, 2019, the registrant had 5,538,575 shares of Class A Common Stock issued and outstanding.

Documents Incorporated by Reference: No documents are incorporated by reference into this annual report on Form 10-K.

**PEN INC.
FORM 10-K
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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this prospectus regarding our strategy, future operations, future financial position, future net sales, projected expenses, prospects and plans and objectives of management are forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievement to be materially different from those expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “project,” “will,” “would,” “should,” “could,” “can,” “predict,” “potential,” “continue,” “objective,” or the negative of these terms, and similar expressions intended to identify forward-looking statements. However, not all forward-looking statements contain these identifying words. These forward-looking statements reflect our current views about future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Actual events or results could differ materially from those expressed or implied by these forward-looking statements as a result of various factors, including the risk factors described in greater detail in the section entitled “Risk Factors.”

These forward-looking statements represent our estimates and assumptions only as of the date of this report. Unless required by U.S. federal securities laws, we do not intend to update any of these forward-looking statements to reflect circumstances or events that occur after the statement is made or to conform these statements to actual results.

PART I

Item 1. Business

PEN develops, commercializes and markets consumer and industrial products enabled by nanotechnology that solve everyday problems for customers in the optical, transportation, military, sports and safety industries. Our primary business is the formulation, marketing and sale of products enabled by nanotechnology including the ULTRA CLARITY brand eyeglass cleaner, CLARITY DEFOGIT brand defogging products and CLARITY ULTRASEAL nanocoating products for glass and ceramics. We also sell an environmentally friendly surface protector, fortifier, and cleaner. Our design center conducts product development services for us and for government and private customers and develops and sells printable inks and pastes, thermal management materials, and graphene foils and windows.

PEN was formed in 2014, and it is the successor to Applied Nanotech Holdings Inc. that had been formed in 1989. In the combination that created PEN, Nanofilm, Ltd. acquired Applied Nanotech Holdings, Inc. Our principal operating segments coincide with our different business activities and types of products sold. This is consistent with our internal reporting structure. Our two reportable segments for the years ended December 31, 2018 and 2017 were (i) the Product segment and (ii) the Contract services segment (which we formerly called the Research and development segment).

Product Segment

Revenue is based on the retail and institutional sale of specialty products utilizing nanotechnology to deliver unique performance attributes at the surfaces of a wide variety of substrates. Our consumer products are sold as liquids, gels, foam and as wet and dry towelettes. Institutional products are sold in liquid form enabling application by a variety of common commercial techniques. We rely on intellectual property including trade secret formulations to protect our proprietary technology.

We have three broad product technology platforms that offer solutions to some common problems such as ease of cleaning, preventing fogging, preventing accumulation of dirt or grime, improving resistance to scuffing and wear. All our products have some “nano” characteristic about them – whether it is being active at the molecular level, incorporation of submicron-particles, or creating very thin, self-assembling coatings that are 20 nanometers or less in thickness.

Our consumer products are primarily customized optical cleaning and de-fogging treatments. In our consumer products, we strive to create segment leading brands that are sustainable, of high quality, and that are both easy and safe to apply. Institutional products include a family of coating liquids that create very thin, strongly-bound, clear coatings on surfaces used for glass and ceramic surface and a series of clear coatings for plastics incorporating submicron size particles to improve abrasion resistance and wear resistance without sacrificing transparency. We manufacture our formulations internally to protect our technology and maintain the highest quality for the products that we and our commercial partners bring to the marketplace.

Our products encompass:

- Liquid and towelette formulations packaged for retail sale to consumers for eyeglass and sunglass lens cleaning and protection.
- Liquid formulation packaged for retail and institutional sale for cleaning and creating hygienic surfaces unfriendly to germs.
- Anti-fogging liquid and towelette formulations packaged for retail sale to consumers for safety glasses, protective eye wear including face shields, and sporting goggles.
- Anti-fogging towelettes for sale to the military for safety, anti-fogging and conditioning of lenses, masks, head gear and other applications such as head’s up displays,
- Mar resistant and stain resistant coatings for high end vitreous china tableware used for heavy duty, usage situations such as restaurants, cruise ships, casinos.
- Clear protective coatings used on display panels and touch screens to make it easy to remove fingerprints. Applications include automotive and hand-held devices.
- Protective and water repelling coatings on interior glass and ceramic surfaces to make it easy to clean and prevent scale and grime encrustation.
- Coatings for ceramic insulators used in transit and underground subways systems to prevent caking of metal dust and greases on surfaces to reduce maintenance and current leakage losses.

We also believe that products enabled by nanotechnology can tackle and solve big, global problems in selected growing markets. We have three primary areas of new product focus:

1. Health: Treating or printing of surfaces at the nano-scale to promote health, fight the spread of disease, and assist in the arms race against superbugs;
2. Safety: “Smelling” at the nano-scale level to identify hazardous conditions, alert those in danger, and initiate steps to prevent catastrophe; and
3. Sustainability: Creating nano-scale devices and formulas using the minimal amounts of safe, natural ingredients and manufacturing methods, and avoiding using harsh chemicals and pesticides, whenever possible.

In 2016, we introduced into the institutional market a hygienic product that creates surfaces unfriendly to germs. Several patent applications related to the formulation have issued. The product is safe for use on many surfaces, both natural and man-made. After application, the product continues to fortify and protect, keeping a clean and healthy surface.

We believe that our manufacturing capacity and contractors with whom we have established relationships will enable us to fill orders for the new product. Ingredients and packaging materials are readily available from a number of suppliers.

Marketing and Distribution

We sell our consumer products directly to retailers in the United States. Historically we have relied heavily on outside agents and distributors but since the last half of 2018 we have emphasized internal sales efforts. Our industrial products are sold directly to customers who frequently use our products in their own branded products.

Manufacturing Operations

We manufacture, pack and label at our 26,000-square foot facility in Brooklyn Heights Ohio.

Intellectual Property and Proprietary Rights

Our nanotechnology expertise and related intellectual property used in our current products is specialized in the areas of surface science, molecular self-assembly, transparent composites, and surfactants. The intellectual property developed from this work is protected with a combination of selective patents and primarily by trade secrets. This intellectual property strategy is like that used by leading companies in the fragrance and flavors industry. No single patent is significant to any of our commercial products.

Competition

Products sold into the optical segment have a small number of significant competitors. Our products are known to be the “benchmark” products in these segments and generally outperform our competitors’. Some of our products in these segments do compete for certain customers or certain applications against lower priced, traditional materials. Most of the companies selling products into these market segments are privately-held, U.S. packaging or catalog companies. Examples in the U.S. include Hilco Accessories, California Accessories, and Amcon Laboratories and, internationally, the catalog company, Prosbien, Inc., from the Peoples Republic of China. In the nano-coating products area or the anti-fog product line we are not aware of any competitive products that match our product performance or processing characteristics.

Products sold into the hygienic, germ-unfriendly market have a diverse variety of potential competitors. Potential competitors fall into the general category of germ-killing cleaners, known as disinfectants. These disinfectants rely on the use of government-approved pesticides as their active ingredient. Examples include bleach, benzalkonium chloride, and alcohols. All disinfectant products require the use of protective gloves and masks for their safe use. Examples in the U.S. include the Clorox Company, GOJO Industries, Inc., and Reckitt Benckiser, Inc. Since our products do not include germ-killing pesticides and do not require protective clothing, it is unclear how customers will perceive our products as compared to these potential competitors.

Backlog

Sales are primarily pursuant to purchase orders for delivery of products. We do not believe that a backlog as of any date is indicative of future results. Some agreements give customers the right to purchase a specific quantity of products during a specified period, but these agreements do not obligate the customers to purchase any minimum quantity. The quantities purchased by the customer, as well as the shipment schedules, are frequently revised during the agreement term to reflect changes in the customer's needs. Because of our relatively small size, a customer's delay of a product shipment can make a difference in the results for an accounting period.

Geographical Information

All long-lived assets are in the United States.

Sources and availability of raw materials and the names of principal suppliers

We use third-party suppliers and contract manufacturers in the United States to obtain substantially all raw materials, components and packaging products. As is customary in our industry, historically we have not had long-term or exclusive agreements with third-party suppliers and have generally made purchases through purchase orders. In the last quarter of 2018 and first quarter of 2019 we terminated most of our outside contract and toll manufacturing, bringing our manufacturing back in house. We believe that we have good relationships with our suppliers and manufacturers and that there are alternative sources should one or more of these suppliers or manufacturers become unavailable. However, the disruption of our operations if a change becomes necessary and the likelihood of shipment delays means that the loss of, or a significant adverse change in our relationship with, any of our key suppliers or manufacturers, or any other supply change disruptions could have a material adverse effect on our business, prospects, results of operations, financial condition or cash flows.

Key Customers

A limited number of key customers historically accounted for a substantial portion of our commercial revenue. Delays in shipping customer orders caused two major customers to advise us in May, 2018 that they would stop buying our products. These customers represented 38% of our revenue for 2018 and 39% of our revenue for 2017. These customers were less than 10% of revenue after the first quarter of 2018.

Contract Services Segment

Our Contract services segment functions as the design center for our new products as well as performing work for government agencies and private strategic partners. Formerly called the research and development segment, this segment has moved away from areas of research that do not involve product development, especially government contracts that require us to fund part of the research cost. This segment is now involved in proof of concepts and prototypes for proposed PEN products and development work under contract for government and private entities. In our work on products for PEN we focus only on submicron size particles, not smaller nanoparticles that are subject to much greater government regulation. Our work generally falls under one of three technology platforms:

- Nanosensor technology;
- Nanoelectronics; and
- Submicron particle formulations and materials for health and safety products.

Much of our contract product development work is done under government contracts. Government contracts frequently limit profit on work done. With private development contracts, there is a relationship between revenues received under the contract and rights granted to the licensee under the contract. Our short-term goal when we work for others is to cover all out of pocket costs and contribute to our overall overhead. Our long-term goal is to become a trusted supplier of products to our development partners.

We have had small scale success with commercial sales of conductive inks and pastes and from thermal management materials. Our graphene foils are also sold commercially but the size of the market is small. Product sales typically come from repeat business or from customer inquiries in our areas of expertise.

We continue to focus on stabilizing our financial situation and operating this segment at break-even or better based solely on revenues from our development activities.

Nanoelectronics Applications – Inks and Pastes

Metallic Inks & Pastes

Copper Inks - As flexible electronics grow, soldering is disappearing. New digital and additive manufacturing processes allow industries to move from the design process directly to the production line. We believe that only submicron particles are capable of producing inks that are compatible with the nozzles used in digital printing.

We sell copper inks and pastes to a variety of customers around the world. Certain of our products based on nano-copper are available only outside Asia under agreements with our former research partner Ishihara Chemical Company, Ltd., that has exclusive rights in Asia to patents developed under research contracts with them. Other copper products that we sell are available worldwide.

Other metallic inks – Our technology and development work in conductive inks also resulted in conductive inks and pastes using nickel, silver, and aluminum rather than copper. Research partners who funded some of our work using silver and aluminum have exclusive rights to certain products for solar applications. We are not restricted in using products for other applications, and we can sell into the solar field our products that do not infringe those specific patents.

There are silver inks on the market today, but because of the high cost of silver relative to copper, a successful copper or copper-alloy ink is likely to be of greater commercial interest to potential customers. Most inks and pastes sold in commercial quantities today are manufactured and sold by large multinational chemical companies. For example, the two largest suppliers of inks and pastes for solar cell production are DuPont and Ferro. We are unable to compete directly with companies of that size in established silver ink markets.

Technical Inks Printing Solution (TIPS)

Conductive inks have the potential to revolutionize many types of electronics manufacturing. Our strategy is to provide a comprehensive solution for end users not just by developing inks, but assisting in the process from start to finish. We call this our Technical Inks Printing Solution. We have also formed relationships with hardware manufacturers with the goal of providing seamless integration into high volume manufacturing for companies wishing to use conductive inks in their manufacturing processes. In addition to traditional 2D printing applications, we developed a multifunctional copper ink for 3D printing applications, the fastest growing segment of printed electronics.

Numerous other companies are working with other technologies for the commercial use of conductive inks and pastes. The commercialization of products using our technology depends on the results of our development work compared with results achieved by others, as well as other factors including raw material costs, marketing, resources, and production capabilities.

Sensors

Our approach to sensor technology offers the unique advantage of recognizing and sometimes measuring materials at the molecular level. Our competition in the sensor area will come from a variety of technologies and companies depending on the purpose and use of the sensor. The areas where we are currently active are:

Ion Mobility Sensors. We are developing sensors based on Ion Mobility Sensor (“IMS”) technology focusing on Differential Mobility Spectroscopy (“DMS”). These sensors are ideal for use when both high sensitivity and high selectivity (low false positives) are required. We have improved on existing IMS and DMS technology by developing our proprietary nonradioactive gas ionization sources to replace the radioactive isotopes that are traditionally used in these tools.

Hydrogen and Methane Sensors. Hydrogen sensors were initially targeted for use in fuel cells for automobiles and for remote monitoring of large power transformers. We developed a hydrogen sensor for use in the measurement of hydrogen in power transformer products. Currently, we are not aware of commercial interest in hydrogen sensors.

Methane gas detectors that we developed for use in the natural gas industry under funding from the Northeast Gas Association have achieved UL 1484 certification for Residential Gas Detectors. In 2018, the Northeast Gas Association completed a field test and reliability study of these sensors. The results have led to further work to improve the performance of these detectors beyond the UL 1484 standards.

Carbon Monoxide Sensors. We have developed a low-power carbon monoxide sensor that can last for 10,000 hours on a single battery. The sensor will be specific to carbon monoxide with no cross sensitivity to other gases and elements and is also easily portable and highly sensitive.

Submicron Particle Formulations and Materials for Health and Safety Applications

Our work in the health and safety area builds on our understanding of certain compounds from our extensive work related to inks and pastes. The understanding of the chemistry of these particles and their interaction with surfactants and other solutions was combined with research and development work done for products already sold commercially resulted in new product concepts and materials with superior properties for applications in the field of health and safety.

Using our experience with metallic inks and our prior work with carbon nanotube composites we developed a new thin carbon foil made of layers of graphene for use in cyclotron accelerators that produce nuclear pharmaceuticals used by the medical field in Positron Emission Tomography (PET) imaging. We supply graphene foil to institutional customers who make nuclear pharmaceuticals. We are working to develop graphene windows and targets to be used by customers in this industry. The extent to which our customers are successful in the nuclear pharmaceutical marketplace is outside our control.

Intellectual Property Rights

An important part of our overall business and product development strategy is to protect our intellectual property and, when appropriate, we seek patent protection for our products and proprietary technology. Historically, we made filings in the United States and selected foreign jurisdictions. Beginning in 2014, as a cost saving measure, we became much more selective in filing patents and reduced the number of jurisdictions where we act to protect our rights. Still, our patent portfolio consists of approximately 20 patents, including issued patents and patent applications pending before foreign and United States Patent and Trademark Offices. Trade secret protection is also important to our products.

The patenting of technology-related products and processes involves uncertain and complex legal and factual questions. The legal standards change from time to time, and administrative and court interpretations are not always consistent in one jurisdiction, or across different jurisdictions. Therefore, there is no assurance that our pending United States and foreign applications will issue, or what scope of protection any issued patents will provide, or whether any such patents ultimately will be upheld as valid by a court of competent jurisdiction in the event of a legal challenge. Interference proceedings, to determine priority of invention, also could arise in any of our pending patent applications. The costs of such proceedings would be significant and an unfavorable outcome could result in the loss of rights to the invention at issue in the proceedings. If we fail to obtain patents, there can be no assurance that we can protect our rights in the technology, or that others will not independently develop substantially equivalent proprietary products and techniques, or otherwise gain access to our technology.

Competitors have filed applications for, or have been issued patents, and may obtain additional patents and proprietary rights relating to products or processes used in, necessary to, competitive with, or otherwise related to, our patents. The scope and validity of these patents, and the extent to which we may be required to obtain licenses under these patents or under other proprietary rights and the cost and availability of licenses is unknown. This may limit our ability to use and to license our technology. Litigation concerning these or other patents could be protracted and expensive. If suit were brought against us for patent infringement, we could potentially challenge the validity of the other patent but would need to overcome a presumption of validity. If we were found to infringe and the patent was held valid (or was unchallenged), there can be no assurance that the prevailing party would grant us a license. Even if a license were available, the payments that would be required are unknown and could materially reduce the value of our interest in the affected products.

We also rely upon unpatented trade secrets. No assurance can be given that others will not independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose such technology or that we can meaningfully protect our rights to our unpatented trade secrets.

We require our employees, directors, consultants, outside scientific collaborators, sponsored researchers, and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information developed or made known to the individual through the relationship is to be kept confidential and not disclosed to third parties except in specific circumstances. In the case of employees and some consultants, the agreements provide that all inventions conceived by the individual while working for us will be our property. There is no assurance, however, that these agreements will provide sufficient protection for our trade secrets in the event of unauthorized use or disclosure of such information.

Government Contracts

A portion of our revenue in the Contract services segment consists of reimbursement of expenditures under U.S. government contracts. Our revenue from government contracts was \$969,626 and \$750,160 for the years ended December 31, 2018 and 2017, respectively. These reimbursements represent all or a portion of the costs associated with such contracts. As of December 31, 2018, we have several government contracts in process that have approximately \$1,297,974 of revenue yet to be recognized. Government contracts are subject to delays and risk of cancellation. Also, government contractors generally are subject to various kinds of audits and investigations by government agencies. These audits and investigations involve review of a contractor's performance on its contracts, as well as its pricing practices, the costs incurred and compliance with all laws, regulations and standards. We have been audited by the government, with no material changes, and we do not expect the results of any government audit to have a significant effect on our operations or our financial statements.

Research and Development

Research and development activity is the driver for our new products and improvement of existing products. Research and development costs incurred in the development of the Company's products was \$12,294 for the year ended December 31, 2018. Research and development costs were \$286,395 for 2017. This represented approximately 1.0% and 9.6% of our total operating costs in each of those years. The ability to engineer product performance using nanotechnology is one of the ways we distinguish our products in marketing and sales of our products. Product research and development work includes development and refinement of formulas, engineering of liquid formulas that can be applied both by hand and by machine, optimization for a variety of performance characteristics, testing and characterization, and work on manufacturing processes and techniques both for producing the product, and for a customer's use of the product.

Compliance with Environmental Laws

Our operations must satisfy governmental safety standards. Applicable safety standards are established by the U.S. Occupational Safety and Health Administration ("OSHA"), pollution control standards by the U.S. Environmental Protection Agency ("EPA") and other state and local regulations, including foreign regulation for products manufactured or shipped outside the U.S. Some of our research work, and products developed may also be subject to regulation under the Radiation Control for Health and Safety Act administered by the Center for Devices and Radiological Health ("CDRH") of the U.S. Food and Drug Administration. We take these requirements into account in product development. Cost of compliance with these regulations has not been significant in the past and we do not expect it to be material in the future.

OSHA, the EPA, the CDRH and other governmental agencies, both in the United States, the states where we or our customers sell products, and foreign countries, may adopt additional rules and regulations that may affect us and products using our technology. The cost of compliance with these regulations has not been significant to us in the past and is not expected to be material in the future. Changing regulations can affect our customers, and we have in the past, and may be required in the future, to reformulate or change packaging to address regulatory issues. This can affect timing of sales which may be significant in an accounting period.

Employees

As of December 31, 2018, we had 13 full-time employees. We do not anticipate the need to hire significant additional employees to support our existing business. If product sales increase, or we begin to see commercial sales of new products, we may hire additional employees in sales and marketing. We are not subject to any collective bargaining agreements, and we consider our relations with our employees to be good.

Item 1A. Risk Factors

Not applicable.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties.

We lease facilities in three locations. Our headquarters is in leased space in Miami, Florida. Our leased space in Austin, Texas is used primarily by our Contract services segment. Leased office, warehouse, manufacturing and laboratory space in Brooklyn Heights, Ohio is used by our Product segment. In 2019, we also have leased space in Bingham Farms, Michigan. These facilities are adequate for our current needs.

Item 3. Legal Proceedings.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our Class A common stock, \$0.0001 par value, trades on the OTCQB system under the symbol "PENC". The following table sets forth, on a per share basis for the periods indicated, the high and low sale prices for the common stock as reported by that system. These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions.

		<u>High</u>	<u>Low</u>
2017	First Quarter	\$ 1.77	\$ 1.30
	Second Quarter	\$ 1.88	\$ 0.71
	Third Quarter	\$ 1.80	\$ 1.00
	Fourth Quarter	\$ 1.69	\$ 1.10
2018	First Quarter	\$ 1.45	\$ 1.00
	Second Quarter	\$ 1.23	\$ 0.70
	Third Quarter	\$ 0.80	\$ 0.38
	Fourth Quarter	\$ 0.65	\$ 0.22

As of September 10, 2019, the closing sale price for our Class A common stock as reported on the OTCQB system was \$0.69 per share. As of that date, there were approximately 346 shareholders of record for our Class A common stock. This does not include beneficial owners holding Class A common stock in street name in brokerage accounts. As of our last record of total shareholders, including those holding stock in street name, there were approximately 3,460 shareholders.

Cash Dividends

We have never paid cash dividends on our common stock, have no plans to pay any dividends, and it is unlikely that we will pay any dividends in the foreseeable future. We currently intend to invest future earnings, if any, to finance expansion of our business. Any payment of cash dividends in the future will be dependent upon our earnings, financial condition, capital requirements, and other factors determined by our board of directors.

Recent Sales of Unregistered Securities

On February 28, 2018, the Company issued an aggregate of 4,443 shares of Class A common stock and 2,962 shares of Class B common stock to the Company's directors as compensation to them for service on its board. These shares were valued on that date at \$1.35 per share based on the quoted price of the stock for a total value of \$10,000. On that same day, the Company issued 6,746 shares of Class B common stock in satisfaction of the outstanding equity credits.

On May 23, 2018, the Company issued an aggregate of 5,043 shares of Class A common stock and 3,362 shares of Class B common stock to the Company's directors as compensation to them for service on its board. These shares were valued on that date at \$1.19 per share based on the quoted price of the stock for a total value of \$10,000.

On October 15, 2018, we issued an aggregate of 20,000 shares of Class A common stock to the Company's directors as compensation to them for service on our board. These shares were valued on that date at \$0.50 per share based on the price paid in the private placement for a total value of \$10,000. On that date 1,774 shares of Class A common stock were issued to fully retire the last outstanding equity credits.

On October 15, 2018, we sold 590,847 shares of Class A common stock for a purchase price of \$0.50 per share in a private placement for aggregate proceeds of \$295,423. Purchasers were PEN Comeback, LLC and Scott & Jeanne Rickert. Ronald Berman, one of our directors, and his son, Tom Berman have reported that they each have 50% control of PEN Comeback. On the same day we also sold: at a price of \$0.03 per option, options that allow PEN Comeback to acquire up to an additional 550,847 shares at an option exercise price of \$1.00 per share, exercisable at any time before June 30, 2019; and, warrant options that, for each option exercised, permit the purchase at a price of \$0.03 per warrant, the purchase of warrants that allow the purchase of a share of stock at an option exercise price of \$2.00 per share; and at a price of \$0.03 per warrant, warrants that allow PEN Comeback to acquire up to an additional 550,847 shares at a warrant exercise price of \$1.50 per share. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue.

On December 5, 2018, we issued an aggregate of 30,000 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.40 per share based on the quoted price of the stock for a total value of \$12,000.

On January 31, 2019, we sold an additional 325,581 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$130,232. At the same time the investor bought warrants to purchase up to 325,581 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$9,767.

On March 22, 2019, we sold 232,558 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$93,023. At the same time the investor bought warrants to purchase up to 325,581 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$6,977.

On April 3, 2019, we issued an aggregate of 18,180 shares of our Class A common stock to five of our directors as compensation to them for service on our Board. The shares were valued at \$0.55 per share based on the quoted price of the stock for a total value of \$10,000. On that date the Board also granted to our President an option to purchase up to 550,000 shares of our Class A common stock at a price of \$0.55 per share. Under that option, the right to purchase 50,000 shares vested on the date of grant, the right to purchase up to 75,000 shares will vest on December 31, 2019, the right to purchase 100,000 shares will vest on June 30, 2020, and the right to purchase up to 125,000 shares will vest on December 31, 2020 and two tranches entitling him to purchase 100,000 shares will vest if he reaches the cap for cash payments under the bonus program in 2019 or 2020. All rights to purchase have a term of 5 years from date of vesting.

On April 24, 2019, we issued an aggregate of 19,998 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.60 per share based on the quoted price of the stock for a total value of \$12,000.

On May 10, 2019, we sold 523,266 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$209,302. At the same time the investor bought warrants to purchase up to 523,266 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$15,698.

On June 27, 2019, we sold 441,860 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$176,744. At the same time the investor bought warrants to purchase up to 441,860 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$13,256.

On July 24, 2019, we issued an aggregate of 18,750 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.64 per share based on the quoted price of the stock for a total value of \$12,000.

On September 6, 2019, we sold 216,912 shares of Class A common stock in a private placement to PEN Comeback 2, LLC at a per share price of \$0.65 for aggregate proceeds of \$140,993. At the same time the investor bought 216,906 warrants to purchase up to 216,906 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$6,507.

On October 9, 2019, we sold an additional 88,235 shares of Class A common stock in a private placement to PEN Comeback 2, LLC at a per share price of \$0.65 for aggregate proceeds of \$57,353. At the same time the investor bought 88,235 warrants to purchase up to 88,235 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$2,647.

On October 23, 2019, we issued an aggregate of 23,331 shares of Class A common stock to our directors as compensation to them for service on our Board and its committees. These shares were valued on that date at \$0.60 per share based on the quoted price of the stock for a total value of \$14,000.

On October 31, 2019, we sold an additional 165,441 shares of Class A common stock in a private placement to PEN Comeback 2, LLC and 15,384 shares of Class A common stock to Rickert Family Partnership, all at a per share price of \$0.65 for aggregate proceeds of \$117,537. At the same time PEN Comeback 2 bought 165,441 warrants to purchase up to 165,441 additional shares and the partnership bought 13 warrants to purchase up to 13 additional shares, all at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$4,963.

The issuances of these shares were exempt from registration under the Securities Act of 1933, as amended, in reliance on Section 4(a)(2) and 3(a)(9).

Equity Compensation Plan Information

The table below sets out as of December 31, 2018 the number of securities to be issued upon the exercise of outstanding options, warrants and rights (column (a)), the weighted average exercise price of those options, warrants and rights (column (b)), and other than the securities to be issued upon the exercise of the outstanding options, warrants and rights, the number of securities remaining available for future issuance under the plan (column (c)).

Plan Category	Plan	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
		(a)	(b)	(c)
Approved by stockholders	Restricted Stock Agreement with Mr. Yaniv (1)	37,778	-	-
Not approved by stockholders	2002 and 2012 Equity Compensation Plans and 2015 Equity Incentive Plan (2)	8,726	\$ 59.21	93,827
	Stock Appreciation Rights Plan (3)	-		
	Total	46,504		93,827

- (1) The Restricted Stock Agreement with Mr. Yaniv was approved by an advisory vote of the stockholders on August 22, 2014. Under the Restricted Stock Agreement as adjusted for the reverse stock split that was effective in January 2016, he holds 37,778 shares of our Class A common stock, subject to forfeiture (the “Forfeiture Restrictions”) which expire upon the first to occur of (i) a change in control of the company, (ii) the death of Mr. Yaniv, or (iii) if more than 180 days after closing the average trading price of the shares during a measurement period of ten consecutive trading days reaches certain price thresholds. At a \$18 price, 5,554 shares vest, with additional tranches of 5,556 shares vesting if the price reaches \$27, \$36, \$45, and \$54. The last 10,000 shares vest at a \$63 price threshold. Because the conditions for vesting were not met, the shares all forfeited on August 26, 2019.
- (2) The 2002 Equity Compensation Plan was approved by a wide majority of the shareholders casting votes at each of the 2010, 2008, and 2007 annual meetings of shareholders. However, since less than 50% of the shares eligible to vote cast votes at each meeting, the plan does not fall into the category of plans approved by shareholders under SEC rules. The 2002 Equity Compensation Plan expired in March 2012 and no future options can be granted under the plan. In April 2012, the Company’s Board of Directors established the 2012 Equity Compensation Plan. All options granted under both plans were priced at the fair market value of our common stock, or greater, on the date of grant and have a life of up to ten (10) years from their date of grant, subject to earlier termination as set forth in the plan. Adjusted for the reverse stock split that was effective January 26, 2016, a total of 27,778 options were authorized under the 2012 plan. The 2015 Equity Incentive Plan was adopted by the Board on November 30, 2015. The Plan permits stock awards as well as option grants. Under this Plan we can make stock grants or option grants. If awards expire unexercised, or restricted shares are forfeited, those shares are again available for grant under the Plan. See the further description of this Plan in Note 9 to the Consolidated Financial Statements.
- (3) The PEN Brands LLC Stock Appreciation Rights Plan will, under certain circumstances, result in the issuance of shares of our common stock. The number of rights that will be issued under that Plan will be determined at the time of our first registered offering based on the price of the shares and therefore the number of shares to be issued is not calculable. See the description of that Plan in Note 14 to the Consolidated Financial Statements.

Item 6. Selected Financial Data

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operation.

The following is management's discussion and analysis of certain significant factors that have affected our financial position and operating results during the periods included in the accompanying consolidated financial statements.

OVERVIEW

PEN develops, commercializes and markets consumer and industrial products enabled by nanotechnology that solve everyday problems for customers in the optical, transportation, military, sports and safety industries. Our primary business is the formulation, marketing and sale of products enabled by nanotechnology including the ULTRA CLARITY brand eyeglass cleaner, CLARITY DEFOGIT brand defogging products and CLARITY ULTRASEAL nanocoating products for glass and ceramics. We also sell an environmentally friendly surface protector, fortifier, and cleaner. Our design center conducts development services for us and for government and private customers and develops and sells printable inks and pastes, thermal management materials, and graphene foils and windows.

Our principal operating segments coincide with the types of products to be sold. The products from which revenues are derived are consistent with the reporting structure of the Company's internal organization. The Company's two reportable segments for the year ended December 31, 2018 and for the 2017 period were (i) the Product segment and (ii) the Contract services segment.

RESULTS OF OPERATIONS

The following comparative analysis on results of operations was based primarily on the comparative consolidated financial statements, footnotes and related information for the periods identified below and should be read in conjunction with the consolidated financial statements and the notes to those statements that are included elsewhere in this report. The results discussed below are for the years ended December 31, 2018 and 2017.

Comparison of Results of Operations for the Year Ended December 31, 2018 and 2017

Revenues

For the years ended December 31, 2018 and 2017, revenues consisted of the following:

	Year Ended December 31,	
	2018	2017
Revenues:		
Product segment	\$ 3,048,164	\$ 6,872,452
Contract services segment	1,282,588	1,005,647
Total segment and consolidated sales	<u>\$ 4,330,752</u>	<u>\$ 7,878,099</u>

For the year ended December 31, 2018, sales from the Product segment decreased by \$3,824,288, or 56%, as compared to the year ended December 31, 2017. This was primarily attributable to reduced sales volume of our optical cleaners and reduced volume of sales for anti-fog products to our traditional customers and delays in putting our products into other channels. As noted above, several key customers of optical cleaners stopped placing new orders in May, 2018.

For the year ended December 31, 2018, revenues of our Contract services segment increased by \$276,941 or 28% as compared to the year ended December 31, 2017, due primarily to the start of several new research projects.

Cost of revenues

Cost of revenues includes inventory costs, materials and supplies costs, internal labor and related benefits, subcontractor costs, depreciation, overhead and shipping and handling costs incurred including costs related to government and private contracts in our Contract services segment.

For the year ended December 31, 2018, cost of revenues decreased by \$2,158,094, or 38%. These consisted of the following:

	Year Ended December 31,	
	2018	2017
Cost of revenues:		
Product segment	\$ 2,325,617	\$ 4,513,318
Contract services segment	1,126,352	1,096,745
Total segment and consolidated cost of revenues	<u>\$ 3,451,969</u>	<u>\$ 5,610,063</u>

Gross profit and gross margin

For the year ended December 31, 2018, gross profit amounted to \$878,783 as compared to \$2,268,036 for the year ended December 31, 2017, a decrease of \$1,389,253, or 61%. The decrease was due to significant reduction in sales volume and use of contract manufacturing that negatively impacted margin. For the years ended December 31, 2018 and 2017, gross margins were 21.2% and 28.8%, respectively.

Gross profit and gross margin by segment and totals are as follows:

	Year Ended December 31,			
	2018	%	2017	%
Gross profit:				
Product segment *	\$ 722,547	23.7%	\$ 2,359,134	34.3%
Contract services segment *	156,236	12.2%	(91,098)	(9.1)%
Total gross profit	<u>\$ 878,783</u>	<u>20.3%</u>	<u>\$ 2,268,036</u>	<u>28.8%</u>

* Gross margin % based on respective segments sales.

Operating expenses

For the year ended December 31, 2018, operating expenses amounted to \$1,197,281 as compared to \$2,987,913 for the year ended December 31, 2017, a decrease of \$1,790,632, or 60%. For the years ended December 31, 2018 and 2017, operating expenses consisted of the following:

	Year Ended December 31,	
	2018	2017
Selling and marketing expenses	\$ 36,891	\$ 285,147
Salaries, wages and related benefits	102,116	957,954
Research and development	12,294	286,395
Professional fees	503,121	644,969
General and administrative expenses	542,859	813,448
Total	<u>\$ 1,197,281</u>	<u>\$ 2,987,913</u>

- For the year ended December 31, 2018, selling and marketing expenses decreased by \$248,256, or 87%, as compared to the year ended December 31, 2017. The decrease was primarily attributable to reduced commission payments.
- For the year ended December 31, 2018, salaries, wages and related benefits decreased by \$855,838, or 89%, as compared to the year ended December 31, 2017. These decreases were attributable to personnel reductions related to our ongoing efforts to reduce costs as well as the increased use of contract manufacturers who process our inventory at their facilities in the Product segment.
- For the year ended December 31, 2018, research and development costs decreased by \$274,101, or 96%, as compared to the year ended December 31, 2017. As part of our cost cutting, we discontinued work on any new product development.
- For the year ended December 31, 2018, professional fees decreased by \$141,848, or 22%, as compared to the year ended December 31, 2017.
- For the year ended December 31, 2018, general and administrative expenses decreased by \$270,589, or 33%, as compared to the year ended December 31, 2017. The decrease the year ended December 31, 2018 was attributable to several factors including the end of amortization of intangibles, and personnel reductions with associated general and administrative expenses.

Loss from operations

As a result of the factors described above, for the year ended December 31, 2018, loss from operations amounted to \$318,498 as compared to a loss from operations of \$719,877 for the year ended December 31, 2017, a difference of \$401,379 or 56%.

Other income

For the year ended December 31, 2018, total other income amounted to \$265,899 as compared to other income of \$32,809 for the year ended December 31, 2017, an increase of \$233,090, or 710%. The increase in 2018 was due to the write-off of an account payable and certain related accruals and the reversal of a portion of a litigation reserve which was settled for less than the amount reserved. In 2017 we recorded a loss on settlement of \$80,000 associated with a settlement agreement with a former employee as well as a net loss on the sale of property, plant and equipment of \$33,677 associated with the relocation of the Product segment operations.

Net loss

As a result of the foregoing, for the year ended December 31, 2018, our net loss amounted to \$53,135 as compared to a net loss of \$687,068 for the year ended December 31, 2017, an improvement of \$633,933 or 92%.

For the years ended December 31, 2018 and 2017, net loss amounted to \$(0.02) per common share (basic and diluted), and a net loss of \$(0.22) per common share (basic and diluted), respectively.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity is the ability of an enterprise to generate adequate amounts of cash to meet its needs for cash requirements. We had a working capital deficit of \$983,822 and unrestricted cash of \$221,502 as of December 31, 2018.

The following table sets forth a summary of changes in our working capital from December 31, 2017 to December 31, 2018:

	December 31, 2018	December 31, 2017	Dollar Change	Percentage Change
Working capital (deficit):				
Total current assets	\$ 1,523,447	\$ 1,751,382	\$ (227,936)	(13.01)%
Total current liabilities	2,507,268	3,096,477	(589,209)	(19.03)%
Working capital (deficit):	<u>\$ (983,822)</u>	<u>\$ (1,345,095)</u>	<u>\$ (361,274)</u>	<u>(26.86)%</u>

The change in working capital was in part because of a reduction in current assets when comparing December 31, 2017 with December 31, 2018. The biggest part of that change was the decline in accounts receivable. Current liabilities decreased with a reduction in accrued expenses, customer deposits and a reduction in the line of credit.

This working capital deficit raises substantial doubt about our ability to continue as a going concern within one year after the date that the financial statements are issued. Management cannot provide assurance that we will ultimately achieve profitable operations or become cash flow positive, or raise additional debt and/or equity capital. Our principal future uses of cash are for working capital requirements, including sales and marketing expenses, legal and other professional fees, capital expenditures and reduction of accrued liabilities. These uses will depend on numerous factors including our sales and other revenues, and our ability to control costs. Recently, we have financed our working capital needs primarily through internally generated funds, and bank loans. We collect cash from our customers based on our sales to them and their respective payment terms. Over the past year we have reduced the scope of our operations to reduce our costs and enable us to operate without raising additional capital, although there can be no assurance that additional capital will not be needed in future periods. We will continue to look for opportunities to raise funds to permit us to increase the marketing of our products.

Our consolidated financial statements included elsewhere in this Annual Report on Form 10-K have been prepared in conformity with accounting principles generally accepted in the United States of America, or U.S. GAAP, which contemplate our continuation as a going concern and the realization of assets and satisfaction of liabilities in the normal course of business. The carrying amounts of assets and liabilities presented in the consolidated financial statements do not necessarily purport to represent realizable or settlement values. The consolidated financial statements do not include any adjustment that might result from the outcome of this uncertainty.

Net cash provided by operating activities was \$155,889 for the year ended December 31, 2018 as compared to net cash provided in operating activities of \$438,558 for the year ended December 31, 2017, a change of \$282,669, or 64%.

- Net cash provided by operating activities for the year ended December 31, 2018 primarily reflected a net loss of \$53,135, partially offset by the add-back of non-cash items totaling \$251,109, and \$(42,088) provided by changes in operating assets and liabilities.
- Net cash used in operating activities for the year ended December 31, 2017 primarily reflected a net loss of \$687,068, partially offset by the add-back of non-cash items totaling \$328,972, and \$796,654 provided by changes in operating assets and liabilities.

Net cash used in investing activities was \$(3,917) for the year ended December 31, 2018 as compared to cash provided by investing activities of \$165,906 for the year ended December 31, 2017. In 2017, the proceeds from sales of property and equipment exceeded the cost of equipment purchases.

Net cash used by financing activities was \$(78,769) for the year ended December 31, 2018 as compared to net cash used by financing activities of \$560,293 for the year ended December 31, 2017. During the year ended December 31, 2018, we paid down \$374,735 more than we received under the line of credit and received \$344,944 in net proceeds from the sale of securities. During the year ended December 31, 2017, we paid down \$578,645 more than we received under the line of credit and repaid other debt in the amount of \$96,648, partially offset by proceeds of \$115,000 from advances from related parties.

CRITICAL ACCOUNTING POLICIES

Our critical accounting policies are included in Note 2 - Significant Accounting Policies of our consolidated financial statements included within this Annual Report.

RECENT ACCOUNTING PRONOUNCEMENTS

Our recently issued accounting standards are included in Note 2 - Significant Accounting Policies of our consolidated financial statements included within this Annual Report.

OFF-BALANCE SHEET ARRANGEMENTS

We have not entered into any other financial guarantees or other commitments to guarantee the payment obligations of any third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder's equity or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or research and development services with us.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Not Applicable.

Item 8. Financial Statements and Supplementary Data.

**PEN INC. AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2018 and 2017**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
PEN Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheet of PEN Inc. (“the Company”) as of December 31, 2018, and the related consolidated statements of operations, changes in stockholders’ deficit and cash flows for the year then ended, and the related notes (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and the results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses, has a stockholders’ deficit and has a working capital deficit. These factors raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans with regard to these matters are described in Note 1. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We have served as the Company’s auditor since 2018.

/s/ Tama, Budaj & Raab, P.C.

Tama, Budaj & Raab, P.C.
Farmington Hills, Michigan
November 13, 2019



Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of:
Pen Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Pen Inc. and Subsidiaries (the “Company”) as of December 31, 2017, the related consolidated statements of operations, changes in stockholders’ deficit, and cash flows, for the year then ended, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2017 and the consolidated results of its operations and its cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has a net loss and cash provided by operating activities of \$687,068 and \$438,558, respectively, in 2017 and has a working capital deficit, stockholders’ deficit and accumulated deficit of \$1,345,095, \$1,096,005 and \$6,587,235, respectively, at December 31, 2017. These matters raise substantial doubt about the Company’s ability to continue as a going concern. Management’s Plan in regard to these matters is also described in Note 2. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

/s/ Salberg & Company, P.A.

SALBERG & COMPANY, P.A.

We have served as the Company’s auditor since 2013 and through
December 7, 2018
Boca Raton, Florida
June 15, 2018

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PEN INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	December 31	December 31
	2018	2017
ASSETS		
CURRENT ASSETS:		
Cash	\$ 221,502	\$ 138,296
Restricted cash	\$ 85,000	\$ 95,003
Accounts receivable, net	307,554	607,632
Accounts receivable - related party	-	14,226
Inventory	827,527	733,979
Prepaid expenses and other current assets	81,864	162,246
Total Current Assets	<u>1,523,447</u>	<u>1,751,382</u>
Property, plant and equipment, net	328,028	388,777
Other assets	32,196	41,116
Total Assets	<u>\$ 1,883,671</u>	<u>\$ 2,181,275</u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Accounts payable	\$ 1,375,042	\$ 1,383,514
Accounts payable - related parties	19,887	19,887
Accrued expenses and other current liabilities	478,155	649,974
Customer deposits	-	169,970
Bank revolving line of credit	330,892	563,218
Current portion of notes payable	73,562	96,533
Advances from related parties	140,000	115,000
Deferred revenue	89,730	98,381
Total Current Liabilities	<u>2,507,268</u>	<u>3,096,477</u>
Notes payable, net of current portion	129,798	180,803
Total Liabilities	<u>2,637,066</u>	<u>3,277,280</u>
Commitments and Contingencies (See Note 11)		
STOCKHOLDERS' DEFICIT:		
Preferred stock, \$0.0001 par value, 20,000,000 shares authorized; no shares issued and outstanding	-	-
Class A common stock: \$0.0001 par value, 7,200,000 shares authorized; 3,741,481 and 1,653,322 issued and outstanding at December 31, 2018 and 2017, respectively	374	165
Class B common stock: \$0.0001 par value, 2,500,000 shares authorized; no shares and 1,423,252 issued and outstanding at December 31, 2018 and 2017, respectively	-	142
Class Z common stock: \$0.0001 par value, 300,000 shares authorized; 0 shares issued and outstanding at December 31, 2018 and 2017, respectively	-	-
Additional paid-in capital	5,886,600	5,490,923
Accumulated deficit	(6,640,370)	(6,587,235)
Total Stockholders' Deficit	<u>(753,396)</u>	<u>(1,096,005)</u>
Total Liabilities and Stockholders' Deficit	<u>\$ 1,883,671</u>	<u>\$ 2,181,275</u>

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended	
	December 31,	
	2018	2017
REVENUES:		
Products (including related party sales of \$0 and \$168,255 for the twelve months ended December 31, 2018 and 2017 respectively)	\$ 3,048,164	\$ 6,872,452
Contract services	1,282,588	1,005,647
Total Revenues	4,330,752	7,878,099
COST OF REVENUES:		
Products	2,325,617	4,513,318
Contract services	1,126,352	1,096,745
Total Cost of Revenues	3,451,969	5,610,063
GROSS PROFIT	878,783	2,268,036
OPERATING EXPENSES:		
Selling and marketing expenses	36,891	285,147
Salaries, wages and related benefits	102,116	957,954
Research and development	12,294	286,395
Professional fees	503,121	644,969
General and administrative expenses	542,859	813,448
Total Operating Expenses	1,197,281	2,987,913
INCOME (LOSS) FROM OPERATIONS	(318,498)	(719,877)
OTHER (EXPENSE) INCOME:		
Interest expense	(90,262)	(70,293)
(Loss) gain on sale of property, plant and equipment, net	-	(33,677)
Loss on settlement reserve	-	(80,000)
Other income, net	355,625	216,779
Total Other (Expense) Income	265,363	32,809
NET INCOME (LOSS)	\$ (53,135)	\$ (687,068)
NET INCOME (LOSS) PER COMMON SHARE:		
Basic	\$ (0.02)	\$ (0.22)
Diluted	\$ (0.02)	\$ (0.22)
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:		
Basic	3,224,529	3,057,052
Diluted	3,224,529	3,057,052

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' DEFICIT
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

	Class A Common Stock		Class B Common Stock		Class Z Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount			
Balance, December 31, 2016	1,367,431	\$ 136	1,402,104	\$ 140	262,631	\$ 26	\$ 5,321,769	\$ (5,900,167)	\$ (578,096)
Common stock issued in satisfaction of accrued director fees	5,383	1	9,230	1	-	-	18,998	-	19,000
Common stock issued for services	17,877	2	11,918	1	-	-	39,996	-	39,999
Conversion of Class Z shares into Class A shares	262,631	26	-	-	(262,631)	-26	-	-	-
Accretion of Class A shares issuable based on market conditions	-	-	-	-	-	-	110,160	-	110,160
Net loss	-	-	-	-	-	-	-	(687,068)	(687,068)
Balance, December 31, 2017	1,653,322	\$ 165	1,423,252	\$ 142	-	\$ -	\$ 5,490,923	\$ (6,587,235)	\$ (1,096,005)
Common stock issued for cash, net of issuance costs	590,847	59	-	-	-	-	295,366	-	295,426
Common stock issued for services	61,260	6	12,800	2	-	-	50,733	-	50,741
Warrants , options, and warrant options on private placement	-	-	-	-	-	-	49,577	-	49,577
Conversion of Class B to Class A shares	1,436,052	144	(1,436,052)	(144)	-	-	-	-	(0)
Net loss	-	-	-	-	-	-	-	(53,135)	(53,135)
Balance, December 31, 2018	<u>3,741,481</u>	<u>374</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,886,600</u>	<u>(6,640,370)</u>	<u>(753,396)</u>

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended	
	December 31,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Net loss	\$ (53,135)	\$ (687,068)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Change in inventory obsolescence reserve	135,644	18,802
Bad debt expense	-	5,067
Depreciation and amortization expense	64,665	121,267
Amortization of deferred lease incentives	-	-
Loss (gain) on sale of property, plant and equipment, net	-	33,677
Stock-based compensation	50,800	150,159
Change in operating assets and liabilities:		
Accounts receivable	300,078	110,146
Accounts receivable - related party	14,226	(3,752)
Inventory	(229,191)	282,718
Prepaid expenses and other assets	89,302	(77,204)
Accounts payable	(8,472)	342,565
Accounts payable - related parties	-	-
Customer deposits	(169,970)	149,817
Accrued expenses	(29,410)	(106,017)
Deferred revenue	(8,651)	98,381
NET CASH PROVIDED BY OPERATING ACTIVITIES	155,886	438,558
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sales of property and equipment	-	172,000
Purchases of property, plant and equipment	(3,916)	(6,094)
NET CASH PROVIDED BY INVESTING ACTIVITIES	(3,916)	165,906
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from bank lines of credit	2,398,600	6,519,236
Repayment of bank lines of credit	(2,773,335)	(7,097,881)
Repayment of bank loans	(73,976)	(80,579)
Proceeds from sale of common stock	344,944	-
Payment of issuance costs related to sale of common stock	-	-
Repayment of loan to third party	-	(16,069)
Proceeds from advances from related parties	25,000	115,000
NET CASH USED IN FINANCING ACTIVITIES	(78,767)	(560,293)
NET DECREASE IN CASH	73,203	44,171
CASH, beginning of year	233,299	189,128
CASH, end of period	\$ 306,502	\$ 233,299
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash paid during the period for interest		
Interest	\$ 90,262	\$ 66,712
Income taxes	\$ -	\$ -
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Reclassification of accrued salary to notes payable - long-term	\$ -	\$ 17,425
Accrued director fees settled with common stock	\$ 50,733	\$ 19,000
The following table provides a reconciliation of cash and restricted cash reported within the consolidated balance sheet that sum to the total of the same such amounts shown in the consolidated statement of cash flows:		
Cash	\$ 221,502	\$ 138,296
Restricted cash	85,000	95,003
Total cash and restricted cash	\$ 306,502	\$ 233,299

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2018 AND 2017

NOTE 1 – ORGANIZATION AND BASIS OF PRESENTATION

Organization

PEN Inc. (“we”, “us”, “our”, “PEN” or the “Company”), a Delaware corporation, develops and sells a portfolio of nano-layer coatings, nano-based cleaners, and nano-composite products based on its proprietary technology, and performs nanotechnology product research and development generating revenues through performing contract services.

Through the Company’s wholly-owned subsidiary, PEN Brands LLC, formerly known as Nanofilm, Ltd., we develop, manufacture and sell consumer and institutional products using nanotechnology to deliver unique performance attributes at the surfaces of a wide variety of substrates. These products are marketed internationally primarily to customers in the optical industry. On May 2, 2017, Nanofilm, Ltd. changed its name to PEN Brands LLC.

Through the Company’s wholly-owned subsidiary, Applied Nanotech, Inc., we primarily perform design and development services for the Company and for governmental and private customers.

Basis of Presentation and Principles of Consolidation

The Company’s consolidated financial statements include the financial statements of its wholly-owned subsidiaries, Applied Nanotech, Inc and PEN Brands LLC. All significant intercompany accounts and transactions have been eliminated in consolidation.

Going Concern

These consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. As reflected in the consolidated financial statements, the Company had a loss from operations and net cash provided by operations of \$318,498 and \$155,886, respectively, for the year ended December 31, 2018. Furthermore, the Company had an accumulated deficit, a stockholders’ deficit and a working capital deficit of \$6,640,370, \$753,396 and \$983,821, respectively, at December 31, 2018 and December 31, 2017. These factors raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that these consolidated financial statements are issued. Management cannot provide assurance that the Company will ultimately achieve profitable operations, become cash flow positive or raise additional capital. During 2017 and 2018, management has taken measures to reduce operating expenses. Although the Company raised equity capital in 2018, there is no assurance that it will be able to continue to do so. If the Company is unable to raise additional capital or secure additional lending in the near future, management expects that the Company will need to curtail its operations. These consolidated financial statements do not include any adjustments related to the recoverability and classification of assets or the amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (“US GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates for the years ended December 31, 2018 and 2017 include estimates for allowance for doubtful accounts on accounts receivable, the estimates for obsolete inventory, the estimates for cooperative advertising liability, the useful life of property and equipment, assumptions used in assessing impairment of long-term assets, estimates of current and deferred income taxes and deferred tax valuation allowances, the fair value of non-cash equity transactions, and the fair value of equity incentives.

Fair Value of Financial Instruments and Fair Value Measurements

The Company adopted the guidance of Accounting Standards Codification (“ASC”) 820 for fair value measurements which clarifies the definition of fair value, prescribes methods for measuring fair value, and establishes a fair value hierarchy to classify the inputs used in measuring fair value as follows:

Level 1 - Inputs are unadjusted quoted prices in active markets for identical assets or liabilities available at the measurement date.

Level 2 - Inputs are quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, inputs other than quoted prices that are observable, and inputs derived from or corroborated by observable market data.

Level 3 - Inputs are unobservable inputs which reflect the reporting entity’s own assumptions on what assumptions the market participants would use in pricing the asset or liability based on the best available information.

The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents, accounts receivable, loans and lines of credit, accounts payable, accrued expenses, and other payables approximate their fair market value based on the short-term maturity of these instruments.

The Company analyzes all financial and non-financial instruments with features of both liabilities and equity under the Financial Accounting Standards Board (“FASB”) accounting standard for such instruments. Under this standard, financial and non-financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company accounts for three instruments at fair value using level 3 valuation.

Description	At December 31, 2018			At December 31, 2017		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Stock appreciation rights Plan A	-	-	\$ -	-	-	\$ -
Equity credits issued	-	-	\$ -	-	-	\$ 2,278

A rollforward of the level 3 valuation of these three financial instruments is as follows:

	Stock Appreciation Rights Plan A	Equity Credits Issued
Balance at December 31, 2016	\$ 53,108	\$ 2,278
Change in fair value included in net loss	1,430	
Reclassification to cash liability	(54,538)	
Balance at December 31, 2017	\$ -	2,278
Change in fair value included in net loss		-
Reclassification to cash liability		-
Balance at December 31, 2018	\$ -	\$ 2,278

ASC 825-10 “Financial Instruments”, allows entities to voluntarily choose to measure certain financial assets and liabilities at fair value (fair value option). The fair value option may be elected on an instrument-by-instrument basis and is irrevocable, unless a new election date occurs. If the fair value option is elected for an instrument, unrealized gains and losses for that instrument should be reported in earnings at each subsequent reporting date. The Company did not elect to apply the fair value option to any outstanding instruments.

Cash, Cash Equivalents and Restricted Cash

For purposes of the consolidated statements of cash flows, the Company considers all highly liquid instruments with a maturity of three months or less at the purchase date and money market accounts to be cash equivalents. Restricted cash includes \$85,000 held in a collateral bank account by a lender (see Note 6). The Company early adopted ASU No. 2016-18 starting in 2017; its adoption did not have a material impact on its consolidated financial statements.

Accounts Receivable

The Company recognizes an allowance for losses on accounts receivable in an amount equal to the estimated probable losses net of recoveries. The allowance is based on an analysis of historical bad debt experience, current receivables aging, and expected future write-offs, as well as an assessment of specific identifiable customer accounts considered at risk or uncollectible. The expense associated with the allowance for doubtful accounts is recognized as general and administrative expense.

Inventory

Inventory is stated at the lower of cost and net realizable value. Cost is determined using the first-in, first-out (FIFO) method.

Effective January 1, 2017, the Company adopted FASB Accounting Standards Update (“ASU”) No. 2015-11, “Simplifying the Measurement of Inventory,” (“ASU 2015-11”) which requires an entity to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market. The adoption of this standard did not have a material impact on the Company’s consolidated financial statements.

Property and Equipment

Property and equipment are stated at cost and are depreciated using the straight-line method over their estimated useful lives, which range from three to ten years. Leasehold improvements are depreciated over the shorter of the useful life or lease term including scheduled renewal terms. Maintenance and repairs are charged to expense as incurred. When assets are retired or disposed of, the cost and accumulated depreciation are removed from the accounts, and any resulting gains or losses are included in other income or expense in the year of disposition. The Company examines the possibility of decreases in the value of these assets when events or changes in circumstances reflect the fact that their recorded value may not be recoverable.

Impairment of Long-Lived Assets

In accordance with ASC Topic 360, the Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable, or at least annually. The Company recognizes an impairment loss when the sum of expected undiscounted future cash flows is less than the carrying amount of the asset. The amount of impairment is measured as the difference between the asset’s estimated fair value and its book value. The Company did not record any impairment charge for the year ended December 31, 2018 and 2017.

Revenue Recognition

For periods prior to January 1, 2018, Company recognized sales when persuasive evidence of an arrangement exists, delivery has occurred or services have been provided, the purchase price is fixed or determinable and collectability is reasonably assured. We adopted ASC 606 effective January 1, 2018 using the modified retrospective method. We concluded that no change was required in our accounting for any sources of revenue for the year ended December 31, 2017, and therefore there was no cumulative effect adjustment required.

Types of revenue:

- Net product sales by our subsidiary PEN Brands LLC.
- Reimbursements under agreements to perform contract services related to new products and product development for government agencies and others by our subsidiary, Applied Nanotech. We do not perform contracts that are contingent upon successful results. Larger projects are sometimes broken down in phases to allow the customer to determine at the end of each phase if they wish to move to the next phase. The agreements with federal government agencies generally provide that, upon completion of a technology development program, the funding agency is granted a royalty-free license to use any technology developed during the course of the program for its own purposes, but not any preexisting technology that we use in connection with the program. We retain all other rights to use, develop, and commercialize the technology. Agreements with nongovernmental entities generally allow the entity the first opportunity to license the technology from us upon completion of the project.
- Product sales and other miscellaneous revenues from our subsidiary, Applied Nanotech such as the sale of conductive inks, graphene foils and thermal management materials.

Revenue recognition criteria:

- Net product sales by our subsidiary PEN Brands LLC, are recognized when the product is shipped to the customer and title is transferred.
- Revenue from contract services is generally recognized based on what we have a right to invoice.
- Revenue from other product sales is recognized at the time the product shipped. The Company's subsidiary Applied Nanotech's primary business is contract services, not the sale of products. Product sales are generally insignificant in number, and are generally limited to the sale of conductive inks, graphene foils, thermal management materials, samples, proofs of concepts, prototypes, or other items resulting from its contract services.
- Other miscellaneous revenue is recognized as deemed appropriate given the facts of the situation and is generally not material.

Sales Incentives and Consideration Paid to Customers

The Company accounts for certain promotional costs such as sales incentives and cooperative advertising as a reduction of sales. For the years ended December 31, 2018 and 2017, the Company recorded approximately \$0 and \$108,303 respectively, as a reduction of sales related to these costs.

During the year ended December 31, 2017, based on industry trends related to cooperative advertising management recorded a one-time adjustment to reduce its cooperative advertising liability by approximately \$446,000 to \$0 as of December 31, 2017 with a corresponding \$446,000 increase to product revenue for the year ended December 31, 2017.

Cost of Sales

Cost of sales includes inventory costs, materials and supplies costs, internal labor and related benefits, subcontractor costs, depreciation, overhead and shipping and handling costs incurred.

Shipping and Handling Costs

Shipping and handling costs incurred relating to the purchase of inventory are included in inventory which is charged to cost of sales as product are sold. Shipping and handling costs incurred for product shipped to customers are included in cost of sales. For the years ended December 31, 2018 and 2017 shipping and handling costs amounted to \$110,761 and \$185,762, respectively.

Research and Development

Research and development costs incurred in the development of the Company's products and under other Company sponsored research and development projects are expensed as incurred. Costs such as direct labor, direct costs, and other allocated costs incurred to perform research and development service pursuant to government and private research projects are included in cost of sales. Research and development costs incurred in the development of the Company's products for the years ended December 31, 2018 and 2017 were \$12,294 and \$286,395, respectively, and are included in operating expenses on the accompanying consolidated statements of operations.

Advertising Costs

The Company participates in various advertising programs. All costs related to advertising of the Company's products are expensed in the period incurred. Advertising costs charged to operations for the years ended December 31, 2018 and 2017 were \$779 and \$14,626, respectively, and are included in selling and marketing on the consolidated accompanying statements of operations. These advertising expenses do not include cooperative advertising and sales incentives which have been deducted from sales.

Federal and State Income Taxes

The Company accounts for income tax using the liability method prescribed by ASC 740, "Income Taxes". Under this method, deferred tax assets and liabilities are determined based on the difference between the financial reporting and tax bases of assets and liabilities using enacted tax rates that will be in effect in the year in which the differences are expected to reverse. The Company records a valuation allowance to offset deferred tax assets if based on the weight of available evidence, it is more-likely-than-not that some portion, or all, of the deferred tax assets will not be realized. The effect on deferred taxes of a change in tax rates is recognized as income or loss in the period that includes the enactment date.

The Company follows the accounting guidance for uncertainty in income taxes using the provisions of ASC 740 "Income Taxes". Using that guidance, tax positions initially need to be recognized in the financial statements when it is more likely than not the position will be sustained upon examination by the tax authorities. As of December 31, 2018, the Company had no uncertain tax positions that qualify for either recognition or disclosure in the financial statements. Tax years that remain subject to examination are the years ending on and after December 31, 2014. The Company does not expect any significant changes in its unrecognized tax benefits within twelve months of the reporting date. The Company recognizes interest and penalties related to uncertain income tax positions in other expense. However, no such interest and penalties were recorded as of December 31, 2018 or 2017.

On December 22, 2017, H.R. 1, known as the "Tax Cuts and Jobs Act" (the Act), was signed into law. The Act includes a number of changes in existing tax law impacting businesses including, among other things, a permanent change in the corporate income tax rate to a fixed rate of 21%. The new rate took effect on January 1, 2018. As a result, the Company revalued its deferred taxes at December 31, 2017.

Stock-Based Compensation

Stock-based compensation is accounted for based on the requirements of the Share-Based Payment Topic of ASC 718 which requires recognition in the financial statements of the cost of employee and director services received in exchange for an award of equity instruments over the period the employee or director is required to perform the services in exchange for the award (presumptively, the vesting period). The ASC also requires measurement of the cost of employee and director services received in exchange for an award based on the grant-date fair value of the award. We adopted ASU No. 2016-09 for annual periods beginning after December 15, 2016. The adoption of this standard did not have a material impact on our consolidated financial statements. The Company adopted ASU No. 2017-09 in 2018; its adoption did not have a material impact on its consolidated financial statements.

Pursuant to ASC Topic 505-50, for share-based payments to consultants and other third-parties, compensation expense is determined at the "measurement date." The expense is recognized over the service period of the award. Until the measurement date is reached, the total amount of compensation expense remains uncertain. The Company initially records compensation expense based on the fair value of the award at the reporting date.

Loss Per Share of Common Stock

ASC 260 "Earnings Per Share", requires dual presentation of basic and diluted earnings per share ("EPS") with a reconciliation of the numerator and denominator of the basic EPS computation to the numerator and denominator of the diluted EPS computation. Basic EPS excludes dilution. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock or resulted in the issuance of common stock that then shared in the earnings of the entity. Basic net loss per common share is computed by dividing net loss available to common shareholders by the weighted average number of shares of common shares outstanding during the period. Diluted net loss per common share is computed by dividing net loss by the weighted average number of shares of common stock, common stock equivalents and potentially dilutive securities outstanding during each period. As of December 31, 2018, and 2017, 37,778 contingently issuable common shares that are issuable based on certain market conditions (see Note 9) are not included in the potential dilutive shares in calculating the diluted EPS. Additionally, potentially dilutive common shares consist of common stock options and warrants (using the treasury stock method).

These common stock equivalents may be dilutive in the future. Potentially dilutive common shares were excluded from the computation of diluted shares outstanding as they would have an anti-dilutive impact on the Company's net losses and consisted of the following:

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Stock options	8,726	19,120
Stock warrants	551,559	712
Restricted stock	37,778	37,778
Warrant Options	550,847	
Total	<u>1,148,910</u>	<u>57,610</u>

Additionally, there are an unknown quantity of common stock equivalents that result from a potential conversion of equity credits and stock appreciation rights (See Notes 13 and 14).

Net loss per share for each class of common stock is as follows:

	Year Ended	Year Ended
	December 31, 2018	December 31, 2017
Net loss per common shares outstanding:		
Class A common stock	\$ (0.02)	\$ (0.24)
Class B common stock	\$ -	\$ (0.22)
Class Z common stock	\$ -	\$ -
 Weighted average shares outstanding:		
Class A common stock	3,741,481	1,539,810
Class B common stock	-	1,414,349
Class Z common stock	-	102,894
Total weighted average shares outstanding	<u>3,741,481</u>	<u>3,057,053</u>

Segment Reporting

The Company uses "the management approach" in determining reportable operating segments. The management approach considers the internal organization and reporting used by the Company's chief operating decision maker for making operating decisions and assessing performance as the source for determining the Company's reportable segments. The Company's chief operating decision maker is the President of the Company, who reviews operating results to make decisions about allocating resources and assessing performance for the entire Company. The Company classified the reportable operating segments into (i) the development, manufacture and sale of consumer and institutional products using nanotechnology to deliver unique performance attributes at the surfaces of a wide variety of substrates (the "Product segment") and (ii) nanotechnology design and development services for our future products and for government and private entities and sales of products developed for third parties (the "Contract services segment").

Recently Issued Accounting Pronouncements

On February 25, 2016, the FASB issued ASU No. 2016-02 ("ASU 2016-02") to amend the accounting guidance for leases. The accounting applied by a lessor is largely unchanged under ASU 2016-02. However, the standard requires lessees to recognize lease assets and lease liabilities for leases classified as operating leases on the balance sheet. Lessees will recognize in the statement of financial position a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. If a lessee makes this election, it will recognize lease expense for such leases generally on a straight-line basis over the lease term. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018 and early adoption is permitted. The Company is currently assessing the impact of the guidance on its consolidated financial statements and notes to its consolidated financial statements.

In July 2017, the FASB issued ASU No. 2017-11, "Earnings Per Share (Topic 260) and Derivatives and Hedging (Topic 815) - Accounting for Certain Financial Instruments with Down Round Features," ("ASU 2017-11"). Equity-linked instruments, such as warrants and convertible instruments may contain down round features that result in the strike price being reduced on the basis of the pricing of future equity offerings. Under ASU 2017-11, a down round feature will no longer require a freestanding equity-linked instrument (or embedded conversion option) to be classified as a liability that is remeasured at fair value through the income statement (i.e. marked-to-market). However, other features of the equity-linked instrument (or embedded conversion option) must still be evaluated to determine whether liability or equity classification is appropriate. Equity classified instruments are not marked-to-market. For earnings per share ("EPS") reporting, the ASU requires companies to recognize the effect of the down round feature only when it is triggered by treating it as a dividend and as a reduction of income available to common shareholders in basic EPS. The amendments in this ASU are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted, including adoption in any interim period. The Company is currently evaluating the effect that adopting this new accounting guidance will have on its consolidated financial statements.

There are no other recently issued accounting standards that apply to us or that are expected to have a material impact on our results of operations, financial condition, or cash flows.

Reclassifications

Certain accounts and financial statement captions in the prior periods have been reclassified to conform to the current period financial statements. None of the reclassifications had any impact on the net loss reported in 2017.

NOTE 3 – ACCOUNTS RECEIVABLE

At December 31, 2018 and 2017, accounts receivable consisted of the following:

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Accounts receivable	\$ 321,224	\$ 623,237
Less: allowance for doubtful accounts	(13,670)	(15,605)
Accounts receivable, net	<u>\$ 307,554</u>	<u>\$ 607,632</u>

Bad debt expense, net of recoveries, was \$34,977 and \$5,067 for the years ended December 31, 2018 and 2017, respectively.

NOTE 4 – INVENTORY

At December 31, 2018 and 2017, inventory consisted of the following:

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Raw materials	\$ 823,283	\$ 595,747
Finished goods	389,716	388,060
	<u>1,212,999</u>	<u>983,807</u>
Less: reserve for obsolescence	(385,472)	(249,828)
Inventory, net	<u>\$ 827,527</u>	<u>\$ 733,979</u>

Excess write-downs related to inventory obsolescence during the years ended December 31, 2018 and 2017 were \$135,644 and \$147,600, respectively, and included within cost of sales on consolidated statement of operations.

NOTE 5 - PROPERTY AND EQUIPMENT

At December 31, 2018 and 2017, property and equipment consisted of the following:

	<u>Useful Life</u>	<u>December 31, 2018</u>	<u>December 31, 2017</u>
Machinery and equipment	5 - 10 Years	\$ 2,729,308	\$ 2,725,391
Furniture and office equipment	3 - 7 Years	578,731	578,731
Leasehold improvements	7 - 15 Years	10,843	10,843
		<u>3,318,882</u>	<u>3,314,965</u>
Less: accumulated depreciation		(2,990,854)	(2,926,188)
Property and equipment, net		<u>\$ 328,028</u>	<u>\$ 388,777</u>

For the years ended December 31, 2018 and 2017, depreciation and amortization expense amounted to \$64,665 and \$121,267, respectively, of which \$53,710 and \$64,587, respectively, is included in cost of sales and the remainder is included in operating expenses.

During the year ended December 31, 2018 there were no sales of equipment. During 2017, the Company sold excess equipment for proceeds of \$172,000. The net book value of the equipment was \$205,677, resulting in a loss of \$(33,677) during the year ended December 31, 2017.

NOTE 6 – BANK LOANS AND LINES OF REVOLVING CREDIT FACILITY

In April 2014, our subsidiary, PEN Brands LLC entered into a \$1,500,000 revolving credit line agreement (the “Revolving Note”) with Mackinac Commercial Credit, LLC (the “Lender”) with draws limited to a borrowing base as defined in the Revolving Note. The unpaid principal balance of this Revolving Note is payable on demand, is secured by all of PEN Brands LLC’s assets, and bears interest computed at a rate of interest (the “Effective Rate”) which is equal to 7.0% above the LIBOR Rate, as defined, payable monthly. PEN Brands LLC will pay to Lender a late charge of 5.0% of any monthly payment not received by Lender within 10 calendar days after its due date. The Company may, at any time or from time to time upon three business days’ written notice to Lender, prepay the Note in whole provided that if (i) Borrower prepays the Revolving Note in full and terminates the Revolving Note, or (ii) Lender terminates the Revolving Note after default, then Borrower will pay a termination premium equal to 2.0% of the maximum loan amount. On May 1, 2015, PEN Brands LLC and the Lender entered into an amendment to the Loan and Security Agreement extending the outside maturity date to April 4, 2016 and permitting advances against an expanded borrowing base. The borrowing base was increased by \$450,000 through October 31, 2015, with this amount reducing by \$7,500 monthly thereafter. In addition, PEN Inc., the parent company, guaranteed PEN Brands LLC’s obligations to the Lender. On April 4, 2016, the maturity date under the Loan & Security Agreement between PEN Brands LLC and the Lender was automatically extended for a one-year renewal term.

Without the Lender’s consent, so long as the obligation remains outstanding, in addition to other covenants as defined in the Revolving Note, PEN Brands LLC shall not a) merge or consolidate with any other company, except for the combination that closed in August 2014 and shall not suffer a change of control; b) make any capital expenditures, as defined, materially affecting the business; c) declare or pay cash dividends upon any of its stock, or distribute any of its property, make any loans, make investments, redeem, retire or acquire any of its stock, d) become liable for the indebtedness of anyone else, as defined, and e) incur indebtedness, other than trade payables.

On April 3, 2017, PEN Brands LLC and the Lender executed a second amendment to the Revolving Note that extended the maturity date to April 4, 2018, with a one-year renewal option. The second amendment also changed the interest rate to 3.0% above the Prime Rate, as reported in the Wall Street Journal. Under a subsequent amendment, the maturity date was changed to July 3, 2018.

On October 17, 2017, pursuant to the terms of the Revolving Note, the gross proceeds of \$85,000 in connection with the Asset Purchase agreement were applied to decrease the borrowing base of the Revolving Note. In connection with the sale of fixed assets, the Company amended the Revolving Note to establish a cash collateral account to be no less than \$85,000. Pursuant to this amendment, the Company entered into a loan agreement with two Company directors in the aggregate principal amount of \$85,000 in order to fund the cash collateral provision pursuant to the amended loan agreement.

On March 30, 2018, PEN Brands and the lender entered into the fourth amendment that permits the borrower to request up to three advances of not more than \$200,000 each supported by certain qualifying purchase orders. Each purchase order advance to be repaid in not less than 30 days. No subsequent request can be made until any prior purchase order advance has been repaid. Two of the Company’s officers and directors have personally guaranteed repayment of purchase order advances. The fourth amendment also changes the maturity date for the loan to July 3, 2018. That date becomes the date for an automatic one-year renewal unless either the lender or the borrower gives notice of non-renewal. Other terms and conditions of the agreement remain the same.

On August 8, 2018, PEN Brands and the lender entered into the fifth amendment with an effective date of July 3, 2018. The fifth amendment renewed the agreement through July 3, 2019 and provides for an automatic one-year renewal at that time unless it is terminated by either party 60 days in advance. The fifth amendment also limits the amounts that PEN Brands can advance to its parent, and provides that advances based on eligible inventory will reduce monthly by \$7,500 per month starting November 1, 2018.

At December 31, 2018 and 2017 the Company had a line of credit balance outstanding of \$330,892 and \$563,218, respectively, which includes accrued interest of \$2,475 and \$14,797, respectively. Advances are less than the amount of the credit line and are limited by the borrowing base at the time of the request for the advance. Subject to the limitations of the borrowing base, the amount available on the line of credit was \$1,176,440 at December 31, 2018. The weighted average interest rate during the years ended December 31, 2018 and 2017 was approximately 7.9% and 5.5%, respectively.

See Note 16 – Subsequent Events for additional details on the Revolving Note.

NOTE 7 – NOTES PAYABLE

On February 10, 2015, Nanofilm entered into a promissory note (the “Equipment Note”) with KeyBank, N.A. (the “Bank”) to borrow up to \$373,000. Nanofilm may obtain one or more advances not to exceed \$373,000. The unpaid principal balance of this Equipment Note is payable in 60 equal monthly installments payments of principal and interest through June 10, 2020. The Equipment Note is secured by certain equipment, as defined in the Equipment Note, and bears interest computed at a rate of interest of 4.35% per annum based on a year of 360 days. At December 31, 2018 and 2017, the principal amount due under the Equipment Note amounted to \$134,944, and \$179,399, respectively. As of December 31, 2018, \$73,562 and \$60,563, respectively, represent the current and non-current portion due under this note. At December 31, 2017, the current and non-current portions were \$74,380 and \$105,019, respectively. See Note 16 – Subsequent Events for additional details on the Equipment Note.

In June and November 2015, in connection with a severance package offered to four employees, the Company entered into four promissory note agreements with the four employees which obligate the Company to pay these employees accrued and unpaid deferred salary in an aggregate amount of \$51,808. The principal amounts due under these notes shall bear interest at the minimum rate of interest applicable under the internal revenue code (approximately 3.0% at December 31, 2017). All principal and interest payable under three of these notes aggregating \$37,458 are due in 2025 and all principal and interest payable under one of these notes amounting to \$14,350 are due in 2020. Accordingly, \$51,808 is included in non-current notes payable.

On May 31, 2016, in connection with a restatement of our agreement with a former research partner, we delivered a promissory note to repay amounts previously advanced to us and accrued. The initial principal amount was \$51,239 bearing interest at 5% per annum. Installment payments include both principal and interest. After an initial payment of \$2,000, the note requires payments of \$1,000 for eleven months, payments of \$2,000 for the following 12 months and monthly payments of \$3,000 thereafter until paid in full. At December 31, 2017, the current liability balance due was \$28,351. The final payment was made in December, 2018 and on December 31, 2018 there was nothing due.

January 2017, the Company issued a promissory note in the principal amount of \$17,425 to a departing employee representing the amount of his accrued and unpaid salary. The note does not bear interest and is due in January 2027, and is included in non-current notes payable.

Future payments of notes payable are as follows:

Year	As of December 31, 2018
2019	73,562
2020	74,913
2021	-
2022	-
Thereafter	54,882
Total	<u>\$ 203,357</u>

NOTE 8 – RELATED PARTY TRANSACTIONS

Sales to Related Party

During the year ended December 31, 2017, the Company engaged in certain sales transactions with a company which was a shareholder and related to a director of the Company. Sales to the related party totaled \$168,255 for the year ended December 31, 2017. Accounts receivable from the related party totaled \$14,226 at December 31, 2017. As of May 23, 2017, that director no longer served on the Company’s Board and the shareholder was no longer an affiliate.

Other

A board member is a principal in DHJH Holdings LLC, the firm that provided the services of the Company's chief financial officer from May 2016 through February 2017. The Company paid \$10,857 in fees and expenses during the year ended December 31, 2017.

As of December 31, 2017, the Company included \$1,000 of director fees within accounts payable-related parties.

Additionally, advances from related parties of \$115,000 from certain Company directors and executives have been included within the consolidated balance sheet as of December 31, 2017 and advances from related parties of \$159,887 from certain Company directors and executives and accrued payroll of \$16,000 due to certain executives have been included within the consolidated balance sheet as of December 31, 2018. The advances are non-interest bearing and are due on demand.

NOTE 9 - STOCKHOLDERS' DEFICIT

Description of Preferred and Common Stock

On December 11, 2015, the Board of Directors of the Company approved a reverse stock split of the issued and outstanding shares of the Company's common stock at the ratio of 1-for-180 (the "Reverse Stock Split") and authorized an amendment of the Company's Amended and Restated Certificate of Incorporation, as amended, to effect the Reverse Stock Split, to reduce the number of authorized shares of common stock, and to set a par value of \$0.0001 per share after the Reverse Stock Split. On January 26, 2016, each one hundred eighty (180) shares of the Company's (i) Class A Common Stock ("Class A common stock"), (ii) Class B Common Stock and (iii) Class Z Common Stock, then issued and outstanding were automatically combined into one (1) validly issued, fully paid and non-assessable share of Class A Common Stock, Class B Common Stock and Class Z Common Stock, respectively, without any further action by the Company or the holder. Additionally, the authorized number of shares of common stock were reduced to 10,000,000 comprised of 7,200,000 shares of Class A Common Stock, 2,500,000 shares of Class B Common Stock ("Class B common stock"), and 300,000 shares of Class Z Common Stock ("Class Z common stock"). The par value of each class of common stock remained the same at \$0.0001 per common share. All share and per share data in the accompanying consolidated financial statements have been retroactively restated to reflect the effect of the Reverse Stock Split and authorized shares. The Company is also authorized to issue 20,000,000 shares of Preferred Stock, par value \$0.0001 per share ("preferred stock").

Preferred Stock

The preferred stock may be issued in one or more series. The Company's board of directors are authorized to issue the shares of preferred stock in such series and to fix from time to time before issuance thereof the number of shares to be included in any such series and the designation, powers, preferences and relative, participating, optional or other rights, and the qualifications, limitations or restrictions thereof, of such series.

Common Stock – General

The rights of each share of Class A common stock, each share of Class B common stock and each share of Class Z common stock are the same with respect to dividends, distributions and rights upon liquidation.

Class A Common Stock

Holders of the Class A common stock are entitled to one vote per share in the election of directors and other matters submitted to a vote of the stockholders.

Class B Common Stock

Conversion Rights. Shares of Class B common stock can be converted, one-for-one, into shares of Class A common stock at any time at the option of the holder. Shares of Class B common stock will automatically be converted into shares of Class A common stock if the shares of Class B common stock are not owned by the Company's chief executive officer, his spouse, or their descendants and their spouses, or by entities or trusts wholly-owned by them.

Voting Rights Holders of PEN Class B common stock are entitled to 100 votes per share in the election of directors and other matters submitted to a vote of the stockholders.

Class Z Common Stock

Conversion Rights. Shares of Class Z common stock can be converted, one-for-one, into shares of Class A common stock at any time at the option of the holder. Shares of Class Z common stock will automatically be converted into shares of Class A common stock if the shares of Class Z common stock are not owned by Zeiss or an entity wholly owned by the ultimate parent of Zeiss.

Voting Rights. Holders of PEN Class Z common stock do not vote in the election of directors or otherwise, but they do have the right to designate a director to the PEN Board, have anti-dilution rights described below and have consent rights with respect to certain amendments to PEN's certificate of incorporation.

Other Rights. The Class Z common stock has anti-dilutive rights that, subject to limited exceptions, permit holders of Class Z common stock to purchase additional shares or equity rights issued by PEN (on the same terms as made available to third parties by PEN) to maintain their economic ownership percentage. The holders of Class Z common stock are also entitled to receive a copy of any notice sent to the holders of Class A common stock or Class B common stock, as and when the notice is sent to such holders.

Issuances of Common Stock

Common Stock Issued for Services

On February 24, 2017, the Company issued an aggregate of 3,846 shares of Class A common stock and 2,564 shares of Class B common stock to the Company's directors as payment for their service on the Company's board. These shares were valued on the date of grant at \$1.56 per share based on the quoted price of the stock for a total value of \$10,000 recognized as stock-based compensation expense.

On April 28, 2017, the Company issued an aggregate of 10,000 shares of Class A common stock and 12,308 shares of Class B common stock to the Company's directors as payment for their service on the Company's board. The shares issued included 4,617 Class A and 3,078 Class B shares as compensation for attendance at the meeting on that date and the rest were issued in payment of \$19,000 in accrued director fees from a prior year. These shares are valued were valued on the date of grant of April 28, 2017 at \$1.30 per share based on the quoted price of the stock for a total value of \$29,000 with \$10,000 recognized as stock-based compensation expense.

On July 28, 2017, the Company issued an aggregate of 4,800 shares of Class A common stock and 3,200 shares of Class B common stock to the Company's directors as payment for their service on the Company's board. These shares were valued on the date of grant at \$1.25 per share based on the quoted closing price of the stock for a total value of \$10,000 recognized as stock-based compensation expense.

On November 17, 2017, the Company issued an aggregate of 4,614 shares of Class A common stock and 3,076 shares of Class B common stock to the Company's directors as compensation to them for service on our board. These shares were valued on that date at \$1.30 per share based on the quoted price of the stock for a total value of \$9,999 recognized as stock-based compensation expense.

On February 28, 2018, the Company issued an aggregate of 4,443 shares of Class A common stock and 2,962 shares of Class B common stock to the Company's directors as compensation to them for service on its board. These shares were valued on that date at \$1.35 per share based on the quoted price of the stock for a total value of \$10,000. On that same day, the Company issued 6,746 shares of Class B common stock in satisfaction of the outstanding equity credits.

On May 23, 2018, the Company issued an aggregate of 5,043 shares of Class A common stock and 3,362 shares of Class B common stock to the Company's directors as compensation to them for service on its board. These shares were valued on that date at \$1.19 per share based on the quoted price of the stock for a total value of \$10,000.

On October 15, 2018, we issued an aggregate of 20,000 shares of Class A common stock to the Company's directors as compensation to them for service on our board. These shares were valued on that date at \$0.50 per share based on the price paid in the private placement for a total value of \$10,000. On that date 1,774 shares of Class A common stock were issued to fully retire the last outstanding equity credits.

On December 5, 2018, we issued an aggregate of 30,000 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.40 per share based on the quoted price of the stock for a total value of \$12,000.

Sales of Common Stock

On October 15, 2018, we sold 590,847 shares of Class A common stock for a purchase price of \$0.50 per share in a private placement for aggregate proceeds of \$295,423. Purchasers were PEN Comeback, LLC and Scott & Jeanne Rickert. Ronald Berman, one of our directors, and his son, Tom Berman have reported that they each have 50% control of PEN Comeback. Immediately prior to this sale, Tom Berman was elected as our President and as President of PEN Brands that operates as our Products segment. Tom Berman was also elected to our board.

Stock Options

On July 25, 2016, the Company granted to two consultants five-year options to purchase an aggregate of 10,000 shares of the Company's common stock at an exercise price of \$2.81 per share. That relationship terminated in October, 2018 and the options were forfeited.

On October 15, 2018, in connection with the sale of shares of our Class A common stock to PEN Comeback LLC we also sold at a price of \$0.03 per option, options that allow PEN Comeback to acquire up to an additional 550,847 shares at an option exercise price of \$1.00 per share, exercisable at any time before June 30, 2019. The fair value of the options is zero.

Stock options outstanding are to purchase Class A common stock. Stock option activities for the years ended December 31, 2018 and 2017 are summarized as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance Outstanding, December 31, 2016	20,483	\$ 41.77		
Exercised	-			
Forfeited	(1,363)	215.54		
Granted	-	-		
Balance Outstanding, December 31, 2017	19,120	\$ 29.38		
Exercised	-			
Forfeited	(10,394)			
Granted	550,847	1.00		
Balance Outstanding, December 31, 2018	<u>559,573</u>	<u>\$</u>		<u>\$ -</u>
Exercisable, December 31, 2018	<u>559,573</u>	<u>\$</u>		<u>-</u>

Warrants

As of December 31, 2018, there were outstanding and exercisable warrants to purchase (1) 712 shares of common stock with a weighted average exercise price of \$2.81 per share and a weighted average remaining contractual term of 31 months, and (2) 550,847 shares of Class A common stock at a weighted average exercise price of 1.50 per share with a weighted average remaining contractual term of 6 months. As of December 31, 2018, there was no intrinsic value for the warrants.

Contingently Issuable Class A Common Shares

On August 27, 2014, the Company entered into a Restricted Stock Agreement with Dr. Zvi Yaniv, the former Chief Operating Officer and President, of Applied Nanotech, and a current employee of the Company granting Dr. Yaniv 37,778 shares of Class A common stock, subject to forfeiture. All these shares become vested and not subject to forfeiture on the earlier of a change of control of the Company, Dr. Yaniv's death, or if more than 180 days after closing, the average trading price of the shares during a measurement period of ten consecutive trading days reaches certain price thresholds. At an \$18.00 price, 5,554 shares vest, with additional tranches of 5,556 shares vesting if the price reaches \$27.00, \$36.00, \$45.00 and \$54.00. The last 10,000 shares vest at a \$63.00 price threshold.

Any shares that have not vested five years after the effective date will be forfeited. The Company also entered into a Piggyback Registration Rights Agreement that will allow Dr. Yaniv, subject to other customary terms and conditions, to register shares that are no longer subject to forfeiture if the Company is registering its shares. Pursuant to ASC 718-10 and related subsections, these shares were valued on the date of grant of August 27, 2014 at \$13.12 per share for a total value of \$495,720. The Company estimates the fair value of the awards with market conditions using a Binomial simulation, which utilizes several assumptions including the risk-free interest rate, the volatility of the Company's stock and the exercise behavior of award recipients. The grant-date fair value of \$495,720 of the awards will be recognized over the requisite service period of 3 years, which represents the derived service period for the stock grant as determined by the Binomial simulation method. For the years ended December 31, 2018 and 2017, in connection with the amortization of the fair value of this stock grant, the Company recorded stock-based compensation of \$0 and \$110,160 respectively. At December 31, 2018 and 2017, there was no unamortized stock-based compensation expense to be recognized in future periods. See Note 16 – Subsequent Events for information about the forfeiture of these shares.

Conversion of Class Z Common Stock

On May 23, 2017, Zeiss converted 262,631 shares of Class Z common stock into 262,631 shares of Class A common stock. Immediately thereafter, Zeiss sold 262,631 shares of Class A common stock to certain buyers which included the Company's Chief Executive Officer for an aggregate of \$100,000. In addition, pursuant to the certificate of incorporation, Zeiss' Board representation automatically terminated and, as a result, Zeiss ceased to be a related party as of May 23, 2017.

Conversion of Class B Common Stock

On or about October 15, 2018 as part of the terms for the stock sale to PEN Comeback, Scott and Jeanne Rickert and their family partnership exercised the right to convert Class B shares into Class A shares on a 1:1 basis resulting in the issuance of 1,436,052 shares of Class A common stock.

2015 Equity Incentive Plan

On November 30, 2015, the Board of Directors authorized the 2015 Equity Incentive Plan (the "Plan"), which reserved 111,111 shares of common stock. If any share of common stock that has been granted pursuant to a stock option ceases to be subject to a stock option, or if any forfeiture or termination affects shares of common stock that are the subject to any other stock-based award, the shares are again available for future grants and awards under the Plan. The Plan's purpose is to enable the Company to offer its employees, officers, directors and consultants an opportunity to acquire a proprietary interest in the Company for their contributions. As of December 31, 2017, 17,284 Class A common shares and options to purchase up to 10,000 Class A common shares were issued under the Plan. As of December 31, 2018, the options had been forfeited and 93,827 shares are available for future issuance.

NOTE 10 – INCOME TAXES

The Company maintains deferred tax assets and liabilities that reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The net deferred tax asset has been fully offset by a valuation allowance because of the uncertainty of the attainment of future taxable income.

The items accounting for the difference between income taxes at the effective statutory rate and the provision for income taxes for the years ended December 31, 2018 and 2017 were as follows:

	Years Ended December 31,	
	2018	2017
Income tax benefit at U.S. statutory rate of 21% (2018) and 34% (2017)	\$ (11,000)	\$ (234,000)
Non-deductible expenses	-	5,000
Other	(9,000)	
Change in valuation allowance	(20,000)	(1,159,000)
Revaluation of deferred tax assets under U.S. tax act	-	1,388,000
Total provision for income tax	\$ -	\$ -

The Company's approximate net deferred tax assets as of December 31, 2018 and 2017 were as follows:

	December 31, 2018	December 31, 2017
Deferred Tax Assets:		
Net operating loss carryforward	\$ 2,027,000	\$ 1,988,000
Stock-based compensation	93,000	93,000
Allowance for inventory obsolescence	85,000	56,000
Accrued compensation	28,000	73,000
Other	32,000	35,000
Total deferred tax assets	2,265,000	2,245,000
Valuation allowance	(2,265,000)	(2,245,000)
Net deferred tax assets	\$ -	\$ -

The estimated net operating loss carryforward was approximately \$9,651,000 at December 31, 2018, which is an estimate of the Company's net operating loss carryforward acquired in the Combination after giving effect to the limitation on the usage of such net operating loss carryforwards due to a change in ownership in accordance with Section 382 of the Internal Revenue Code plus net operating loss carryforwards since the Combination. The Company provided a valuation allowance equal to the net deferred income tax asset for the year ended December 31, 2018 because it was not known whether future taxable income will be sufficient to utilize the loss carryforward. The potential tax benefit arising from tax loss carryforwards will expire between 2019 and 2037.

On December 22, 2017, H.R. 1, known as the "Tax Cuts and Jobs Act" (the Act), was signed into law. The Act includes a number of changes in existing tax law impacting businesses including, among other things, a permanent change in the corporate income tax rate to a fixed rate of 21%. The new rate took effect on January 1, 2018. As a result, the Company revalued its deferred taxes at December 31, 2017.

In accordance with Section 382 of the Internal Revenue Code, the usage of the Company's net operating loss carry forwards are subject to annual limitations due to greater than 50% ownership changes. Additionally, the future utilization of the net operating loss carryforwards to offset future taxable income may be subject to special tax rules which may limit their usage under the Separate Return Limitation Year ("SRLY") rules. If necessary, the deferred tax assets will be reduced by any carryforward that expires prior to utilization as a result of such limitations, with a corresponding reduction of the valuation allowance.

The Company's 2015, 2016, 2017 and 2018 Corporate Income Tax Returns are subject to Internal Revenue Service examination.

NOTE 11 - COMMITMENTS AND CONTINGENCIES

Leases

The Company leases its facilities and certain equipment under non-cancelable operating leases. Rent expense for operating leases was \$335,004 and \$529,723 for the years ended December 31, 2018 and 2017, respectively, including \$0 and \$5,346 of amortization for deferred lease incentives for the years ended December 31, 2018 and 2017.

On September 20, 2017, the Company entered into a three-year lease agreement for 22,172 square feet of office space in Brooklyn Heights, Ohio beginning September 20, 2017 and ending September 20, 2020. Monthly lease payments amount to \$8,688 for a total of approximately \$312,768 for the total term of the lease.

On December 10, 2018, we entered into a five-year lease agreement for 3,742 square feet of space for the design facility in Austin, beginning January 2019 and ending February 29, 2024. Monthly lease payments start at \$3,472 per month, increasing 3% each year for a total of approximately \$238,440 over the term of the lease.

Future minimum lease payments under non-cancelable operating leases at December 31, 2018 are as follows:

Years ending December 31,	Amount
2019	\$ 202,443
2020	155,605
2021	73,345
2022	69,640
2023	70,626
Total minimum non-cancelable operating lease payments	\$ 571,659

Litigation

The Company may be, from time to time, subject to various administrative, regulatory, and other legal proceedings arising in the ordinary course of business. We are not currently a defendant in any proceedings. Our policy is to accrue costs for contingent liabilities, including legal proceedings or unasserted claims that may result in legal proceedings, when a liability is probable and the amount can be reasonably estimated. As of December 31, 2017, we had \$85,000 accrued related to a settlement. In December 2018, under a superceding agreement, we made a lump sum payment of \$24,000 to the other party in full and final settlement of all obligations and reversed the balance of the accrual. As of December 31, 2018, the Company has not accrued any amount for litigation contingencies.

NOTE 12 – CONCENTRATIONS

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of trade accounts receivable and cash deposits and investments in cash equivalent instruments.

Lender Concentration

The Company relies primarily on one lender under a \$1,500,000 Revolving Note (See Note 6).

Customer Concentrations

Customer concentrations for the years ended December 31, 2018 and 2017 are as follows:

	Revenues	
	For the Years Ended December 31,	
	2018	2017
Customer A	30%	27%
Customer B	*%	12%
Total	30%	39%

	Accounts Receivable	
	As of December 31,	
	2018	2017
Customer A	25%	30%
Customer B	*%	21%
Customer C	23	*%
Customer D	17	*%
Total	65%	51%

*Less than 10%

A reduction in sales from or loss of such customers would have a material adverse effect on our consolidated results of operations and financial condition.

Geographic Concentrations of Sales

For the years ended December 31, 2018 and 2017, total sales in the United States represent approximately 93% and 74% of total consolidated revenues, respectively. No other geographical area accounting for more than 10% of total sales during the years ended December 31, 2018 and 2017.

Vendor Concentrations

Vendor concentrations for inventory purchases for the years ended December 31, 2018 and 2017 are:

	For the Years Ended December 31,	
	2018	2017
Vendor A	22%	26%
Vendor B	21%	10%
Vendor C	10%	10%
Vendor D	*%	14%
Total	54%	60%

*Less than 10%

NOTE 13 – EQUITY CREDITS

In 1997, PEN Brands LLC established The Equity Credit Incentive Program. This program enabled select employees the opportunity to purchase equity credits that increase in value based upon an increase in PEN Brands LLC's revenue over a base year of 1996. Eligible credits can be redeemed after two years at the equity credit value for that year. Under certain circumstances, the equity credits are convertible into PEN Brands LLC equity on a one-for-one basis. During the year ended December 31, 2017, no equity credits were forfeited and no units were redeemed. The 8,250 equity credits outstanding were all held by our CEO and had a redemption value of \$2,278 at December 31, 2017. In 2018 shares were issued to convert the remaining equity credits into equity. As of December 31, 2018, no equity credits were issued and outstanding.

NOTE 14 – STOCK APPRECIATION PLAN

From June 1, 1988, until December 31, 1997, when the plan was terminated, PEN Brands LLC had in place a Stock Appreciation Rights Plan A (the "Plan"), intended to provide employees, directors, members of a technical advisory board and certain independent contractors selected by the Board with equity-like participation in the growth of PEN Brands LLC. The maximum number of stock appreciation rights that could be granted by the Board was 1,000,000. There were 235,782 fully vested stock appreciation rights ("SARS") outstanding under the terms of the Plan at December 31, 2018 and 2017.

At December 31, 2018 and 2017, the Company accrued \$54,290 and \$54,538, respectively, related to the cash redemption value associated with the stock appreciation rights held by terminated employees.

NOTE 15 – SEGMENT REPORTING

The Company's principal operating segments coincide with the types of products to be sold. The products from which revenues are derived are consistent with the reporting structure of the Company's internal organization. The Company's two reportable segments for the years ended December 31, 2018 and 2017 were the Product segment and ii) the Contract services segment (formerly the research and development segment). The Company's chief operating decision-maker has been identified as the President, who reviews operating results to make decisions about allocating resources and assessing performance for the entire Company. Segment information is presented based upon the Company's management organization structure as of December 31, 2018 and the distinctive nature of each segment. Future changes to this internal financial structure may result in changes to the reportable segments disclosed. There are no inter-segment revenue transactions and, therefore, revenues are only to external customers. As the Company primarily generates its revenues from customers in the United States, no geographical segments are presented.

Segment operating profit is determined based upon internal performance measures used by the chief operating decision-maker. The Company derives the segment results from its internal management reporting system. The accounting policies the Company uses to derive reportable segment results are the same as those used for external reporting purposes. Management measures the performance of each reportable segment based upon several metrics, including net revenues, gross profit and operating loss. Management uses these results to evaluate the performance of, and to assign resources to, each of the reportable segments. The Company manages certain operating expenses separately at the corporate level and does not allocate such expenses to the segments. Segment income from operations excludes interest income/expense and other income or expenses and income taxes according to how a particular reportable segment's management is measured. Management does not consider impairment charges, and unallocated costs in measuring the performance of the reportable segments.

Segment information available with respect to these reportable business segments for the years ended December 31, 2018 and 2017 was as follows:

	For the Years Ended December 31,	
	2018	2017
Revenues:		
Product segment	\$ 3,048,164	\$ 6,872,452
Contract services segment	\$ 1,282,588	\$ 1,005,647
Total segment and consolidated revenues	<u>\$ 4,330,752</u>	<u>\$ 7,878,099</u>
Cost of revenues:		
Products	\$ 2,325,617	\$ 4,513,318
Contract services segment	\$ 1,126,352	\$ 1,096,745
Total segment and consolidated cost of revenues	<u>\$ 3,451,969</u>	<u>\$ 5,610,063</u>
Gross profit (loss):		
Product segment	\$ 722,547	\$ 2,359,134
Contract services segment	156,236	(91,098)
Total segment and consolidated gross profit	<u>\$ 878,783</u>	<u>\$ 2,268,036</u>
Gross margin:		
Product segment	23.7%	34.3%
Contract services segment	12.2%	-9.1%
Total gross margin	<u>20.3%</u>	<u>28.8%</u>
Segment operating expenses:		
Product segment	1,036,823	1,967,510
Contract services segment	200,621	212,551
Total segment operating expenses	<u>1,237,444</u>	<u>2,180,061</u>
Income (loss) from operations:		
Product segment	\$ (314,276)	\$ 391,624
Contract services segment	(44,385)	(303,649)
Total segment income (loss)	(358,661)	87,975
Unallocated costs	40,163	(807,852)
Total consolidated income (loss) from operations	<u>\$ (318,498)</u>	<u>\$ (719,877)</u>
Depreciation and amortization:		
Product segment	\$ 64,241	\$ 108,887
Contract services segment	424	12,380
Total segment depreciation and amortization	64,665	121,267
Unallocated depreciation	-	-
Total consolidated depreciation and amortization	<u>\$ 64,665</u>	<u>\$ 121,267</u>
Capital additions:		
Product segment	\$ -	\$ 6,094
Contract services segment	3,917	-
Total segment capital additions	3,917	-
Unallocated capital additions	-	-
Total consolidated capital additions	<u>3,917</u>	<u>\$ -</u>
	December 31, 2018	December 31, 2017
Segment total assets:		
Product segment	\$ 1,704,314	\$ 1,982,579

Contract services segment	\$	153,747	168,740
Corporate	\$	25,610	29,956
Total consolidated total assets	\$	<u>1,883,671</u>	<u>\$ 2,181,275</u>

NOTE 16 - SUBSEQUENT EVENTS

Sales of Common Stock and Derivate Equity Securities; Forfeiture of Contingently Issued Stock

On January 31, 2019, we sold an additional 325,581 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$130,232. At the same time the investor bought warrants to purchase up to 325,581 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$9,767.

On March 22, 2019, we sold 232,558 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$93,023. At the same time the investor bought warrants to purchase up to 325,581 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$6,977.

On May 10, 2019, we sold 523,266 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$209,302. At the same time the investor bought warrants to purchase up to 523,266 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$15,698.

On June 27, 2019, we sold 441,860 shares of Class A common stock in a private placement to PEN Comeback at a per share price of \$0.40 for aggregate proceeds of \$176,744. At the same time the investor bought warrants to purchase up to 441,860 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires on the earlier of (1) 45 days after the day that PEN shares have been trading at or above 120% of the exercise price for a period of 90 days, or (2) four years from date of issue. Aggregate proceeds from the sales of the warrants were \$13,256.

August 27, 2019 was the fifth anniversary of the date of issue for the restricted stock issued to Dr. Yaniv. Because none of the vesting conditions were met, the 37,778 shares of Class A common stock contingently issued were forfeited and are no longer outstanding.

On September 6, 2019, we sold 216,912 shares of Class A common stock in a private placement to PEN Comeback 2, LLC at a per share price of \$0.65 for aggregate proceeds of \$140,993. At the same time the investor bought 216,906 warrants to purchase up to 216,906 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$6,507.

On October 9, 2019, we sold an additional 88,235 shares of Class A common stock in a private placement to PEN Comeback 2, LLC at a per share price of \$0.65 for aggregate proceeds of \$57,353. At the same time the investor bought 88,235 warrants to purchase up to 88,235 additional shares at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$2,647.

On October 31, 2019, we sold an additional 165,441 shares of Class A common stock in a private placement to PEN Comeback 2, LLC and 15,384 shares of Class A common stock to Rickert Family Partnership, all at a per share price of \$0.65 for aggregate proceeds of \$117,537. At the same time PEN Comeback 2 bought 165,441 warrants to purchase up to 165,441 additional shares and the partnership bought 13 warrants to purchase up to 13 additional shares, all at a warrant exercise price of \$1.50. The right to purchase warrant shares expires four years from date of issue. Aggregate proceeds from the sales of the warrants were \$4,963.

Stock for Services

On April 3, 2019, we issued an aggregate of 18,180 shares of our Class A common stock to five of our directors as compensation to them for service on our Board. The shares were valued at \$0.55 per share based on the quoted price of the stock for a total value of \$10,000. On that date the Board also granted to our President an option to purchase up to 550,000 shares of our Class A common stock at a price of \$0.55 per share. Under that option, the right to purchase 50,000 shares vested on the date of grant, the right to purchase up to 75,000 shares will vest on December 31, 2019, the right to purchase 100,000 shares will vest on June 30, 2020, and the right to purchase up to 125,000 shares will vest on December 31, 2020 and two tranches entitling him to purchase 100,000 shares will vest if he reaches the cap for cash payments under the bonus program in 2019 or 2020. All rights to purchase have a term of 5 years from date of vesting.

On April 24, 2019, we issued an aggregate of 19,998 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.60 per share based on the quoted price of the stock for a total value of \$12,000.

On July 24, 2019, we issued an aggregate of 18,750 shares of Class A common stock to our directors as compensation to them for service on our Board. These shares were valued on that date at \$0.64 per share based on the quoted price of the stock for a total value of \$12,000.

Lender Pay-Off & Equipment Note Refinancing

On January 31, 2019, PEN Brands paid \$172,101 to its secured lender, MBank. This payment, and the application of \$85,000 in cash collateral held by MBank paid in full the outstanding principal balance, accrued interest and fees due to the lender. The parties also terminated the revolving credit line agreement and note originally executed in April 2014 that was renewed in August 2018.

On June 18, 2019, PEN Brands entered into an Amendment to the Equipment Note with the Bank. By the amendment, the maturity date of the note was extended until April 10, 2022, the interest rate was raised to 6.29% per year, and the monthly payments were reduced.

On October 23, 2019, we issued an aggregate of 23,331 shares of Class A common stock to our directors as compensation to them for service on our Board and its committees. These shares were valued on that date at \$0.60 per share based on the quoted price of the stock for a total value of \$14,000.

Item 9. Changes and Disagreements with Accountants on Accounting and Financial Disclosures.

At the request of the Board of directors, we initiated a competitive process to select an independent accounting firm. The results of that process were reviewed with the Board on December 5, 2018, and the Audit Committee was empowered to make the final selection. On December 7, 2018 the Audit Committee approved the engagement of Tama Budaj Raab. On that day we informed Salberg & Company, P.A. (“Salberg & Co”) that it was being dismissed as our independent, registered public accounting firm.

The reports of Salberg & Co on our consolidated financial statements for the two most recent fiscal years ended December 31, 2017 and December 31, 2016 did not contain an adverse opinion or a disclaimer of opinion, nor were they qualified or modified as to uncertainly, audit scope or accounting principles except that Salberg & Co’s reports for both years included a paragraph indicating there was substantial doubt about our ability to continue as a going concern.

During our two most recent fiscal years referred to above and during the subsequent interim reporting periods through December 7, 2018, there were (1) no disagreements with Salberg & Co on any matter of accounting principles or practices, financial statement disclosures, or auditing scope or procedures which disagreements, if not resolved to the satisfaction of Salberg & Co would have caused Salberg & Co to make reference to the subject matter of the disagreements in connection with its reports, and (2) no events of the type listed in paragraphs (A) through (D) of Item 301(a)(1)(v) of Regulation S-K.

During our two most recent fiscal years ended December 31, 2017 and December 31, 2016 and during the subsequent interim reporting periods through December 7, 2018, neither we nor anyone acting on our behalf has consulted Tama Budaj Raab with respect to (i) the application of accounting principles to a specified transaction, either contemplated or proposed, or the type of audit opinion that might be rendered on our consolidated financial statements, and neither a written report was provided by us nor oral advice was provided to us that Tama Budaj Raab concluded was an important factor considered by us in reaching a decision as to the accounting, auditing or financial reporting issue, or any matter that was either the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation SK and the related instructions) or a reportable event (as described in Item 304(a)(1)(v) of Regulation SK).

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports, filed under the Securities Exchange Act of 1934, is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, a control may become inadequate because of changes in conditions or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

As required by the SEC Rules 13a-15(b) and 15d-15(b), we carried out an evaluation under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective at the reasonable assurance level due to the material weaknesses described below.

To address these material weaknesses, management engaged financial consultants, performed additional analyses and other procedures to ensure that the financial statements included herein fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented.

Management’s Annual Report on Internal Control Over Financial Reporting.

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting (“ICFR”) for the Company. Our internal control system was designed to, in general, provide reasonable assurance to the Company’s management and board regarding the preparation and fair presentation of published financial statements, but because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2018. The framework used by management in making that assessment was the criteria set forth in the document entitled “2013 Internal Control – Integrated Framework” issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that assessment, management concluded that, during the period covered by this report, such internal controls and procedures were not effective as of December 31, 2018 and that material weaknesses in ICFR existed as more fully described below.

A material weakness is a deficiency, or a combination of deficiencies, within the meaning of Public Company Accounting Oversight Board (“PCAOB”) Auditing Standard AS 2201, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company’s annual or interim financial statements will not be prevented or detected on a timely basis. Management has identified the following material weaknesses which have caused management to conclude that as of December 31, 2018 our internal controls over financial reporting were not effective at the reasonable assurance level:

1. We do not have sufficient resources in our accounting function, which restricts the Company’s ability to gather, analyze and properly review information related to financial reporting in a timely manner. In addition, due to our size and nature, segregation of all conflicting duties may not always be possible and may not be economically feasible. However, to the extent possible, the initiation of transactions, the custody of assets and the recording of transactions should be performed by separate individuals. Management evaluated our limited resources and our failure to have segregation of duties on our assessment of our disclosure controls and procedures and has concluded that the control deficiency that resulted represented a material weakness.
2. We have inadequate controls to ensure that information necessary to properly record transactions is adequately communicated on a timely basis from non-financial personnel to those responsible for financial reporting. Management evaluated the impact of the lack of timely communication between non-financial personnel and financial personnel on our assessment of our reporting controls and procedures and has concluded that the control deficiency represented a material weakness.

We have taken steps to remediate the weaknesses described above, including by expanding the responsibilities of our more experienced accounting personnel. We intend to continue to address these weaknesses as resources permit.

Notwithstanding the assessment that our ICFR was not effective and that there are material weaknesses as identified herein, we believe that our consolidated financial statements contained in this Annual Report fairly present our financial position, results of operations and cash flows for the years covered thereby in all material respects.

This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm as we are a smaller reporting company and are not required to provide the report.

Changes in Internal Control Over Financial Reporting

Our internal control over financial reporting has not changed during the fourth quarter covered by this Annual Report on Form 10-K, except as discussed above.

Item 9B. Other Information.

Not Applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The following sets forth the names of our directors and executive officers, their ages, positions they hold and the time they have served us. The narrative below sets out their principal occupations at present and for at least the past five years.

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>	<u>Serving Since</u>
Ronald J. Berman	62	Director	May 1996
Tom J. Berman	40	Director and President	October, 2018
Douglas Q. Holmes	63	Director	August 2014
Jeanne M. Rickert	66	Director and Chief Legal Officer	August 2014
Scott E. Rickert	66	Chairman of the Board	August 2014
Jaqueline M. Soptick	52	Chief Accounting Officer	February 2017
Howard Westerman	67	Director	May 2007

Our directors are appointed for a one-year term to hold office until the next annual general meeting of our shareholders or until removed from office in accordance with our bylaws. All directors listed above will remain in office until the next annual meeting of our stockholders, and until their successors have been duly elected and qualified. There are no agreements with respect to the election of Directors. Our Board of Directors appoints officers annually and each Executive Officer serves at the discretion of our Board of Directors.

Ronald J. Berman was in the private practice of law from 1980-1987. Mr. Berman co-founded Rock Financial (now Quicken Loans) in 1985 and was a member of its Board of Directors. Mr. Berman cofounded BEG Enterprises and served as its President from 1989 to 1998. Mr. Berman is currently President of R.J. Berman Enterprises, Ltd., a real estate investment company, and practicing law as a sole practitioner. Mr. Berman is a licensed attorney in both Michigan and Florida. Mr. Berman filed for personal bankruptcy in 2011. He is the father of director and officer Tom Berman.

With his experience in legal matters and founding businesses, Mr. Berman provides our board with professional and strategic expertise as well as the benefit of his significant knowledge of business operations.

Tom J. Berman joined us on October 15, 2018, as our President and as a director and he serves as President and CEO of our subsidiary, PEN Brands LLC. Prior to joining us, Mr. Berman was most recently Chief Administrative Officer and General Counsel for Ascion, LLC d/b/a Reverie, a Michigan based Sleep Technology company. At Ascion he was responsible to help to develop that company's overall business strategy along with leading its business development, HR and IT and Legal departments as well as its real estate management. He was with Ascion from 2012 until 2018. Prior to joining Ascion Mr. Berman founded Berman Law, PLLC. He is a graduate of Michigan State University and of the University of Detroit Mercy School of law. Tom Berman is the son of director Ronald J. Berman.

With his operations experience and experience guiding the growth at Ascion, Mr. Berman will provide operational and strategic guidance especially to our Product segment as well as bringing his viewpoint as a legal professional.

Douglas Q. Holmes is a Managing Director of Somerset NEO LLC, a consulting firm. For over 35 years he served as an investment banker at Lazard Freres & Co., The First Boston Corporation and Kidder, Peabody & Co. before becoming a founding member of, Carleton McCreary Holmes & Co., that was merged with Key Corp., where Mr Holmes was a Senior Managing Director. He was a founding member of, Holmes Hollister & Co., a founding partner of a private equity firm, Full Circle Investments, and a mezzanine fund, Key Mezzanine Partners, and has been a principal and board member in several companies as a financial investor. Mr. Holmes has a wide range of merger and acquisition experience, advising both domestic and international corporations on both buying and selling companies, structuring joint ventures, providing fairness opinions and starting new businesses. His corporate finance experience includes public equity and debt offerings, structuring new asset based securities with complex tax structures and privately placing all forms of capital. Industry experience includes automotive/truck, specialty materials, consumer, healthcare, and natural resources. Mr. Holmes received a B.A. from Kenyon College and an M.B.A. from Tuck at Dartmouth College.

With his experience in corporate finance and mergers and acquisitions, Mr. Holmes brings broad corporate finance experience, knowledge of financing options and alternatives as well as providing significant knowledge of a wide range of mergers and acquisitions.

Jeanne M. Rickert has served as our General Counsel and a Director since August 2014 and as the General Counsel of Nanofilm since January, 2014. Before that she was a lawyer with the Cleveland office of the international law firm of Jones Day, as a partner of the firm for 25 years and as Of Counsel in 2013. Her practice focused on mergers and acquisitions, joint ventures and general corporate and commercial matters. Her undergraduate degree is from Cornell University and her law degree from Case Western Reserve University. She is married to Scott Rickert.

With her prior experience in the practice of law and as our General Counsel, Ms. Rickert provides our board with legal expertise as well as the benefit of her significant knowledge of business law and transactions.

Scott E. Rickert has served as Chairman of our Board of Directors since August 2014. He served as our President and Chief Executive Officer from August, 2014 until Mr. Tom Berman was elected President in April, 2019. Mr. Rickert had been the Chief Executive Officer of Nanofilm since 2002, after serving Nanofilm as President from its founding in 1985. Prior to starting Nanofilm, Mr. Rickert was a tenured professor of Macromolecular Science at Case Western Reserve University. He has a B.S. in Chemical Engineering from Cornell University and an M.S. and Ph.D. from Case Western Reserve University. He did post-doctoral work at the University of Pennsylvania. He is married to Jeanne Rickert.

Combining his technical background and expertise with his prior experience in developing, commercializing and marketing enhanced-performance products enabled by nanotechnology, Mr. Rickert provides our board with technical and operational expertise as well providing guidance to the companies based on his significant knowledge of all aspects of the production and sale of nanotechnology enhanced-performance products.

Jaqueline M. Soptick is our Chief Accounting Officer. Ms. Soptick has been with our subsidiary Applied Nanotech, Inc. since 2001 and has been its Controller since 2002. From April 15, 2014 until the end August that year, she served as the Chief Accounting Officer of our predecessor, Applied Nanotech Holdings, Inc.

With her understanding of our operations Ms. Soptick will bring practical experience to the role as well as accounting skills.

Howard Westerman is the Chief Executive Officer of JW Energy Company, a privately held energy development and energy services company headquartered in Dallas, Texas. Mr. Westerman joined JW Energy Company in 1978 and became CEO in 1999. Under his leadership as CEO, the Company's revenues increased from approximately \$70 million to \$1 Billion. Mr. Westerman has served on the board of PUDO Inc. since 2015 and he served on the board of Peerless Manufacturing Company from 2006 through 2016. He also serves on numerous charitable and community boards.

As a former executive of an operating company, Mr. Westerman brings operations experience to our board, as well as financial acumen and the perspective of an investor.

Compliance with Section 16(a) of the Exchange Act

Based solely upon a review of Forms 3 and 4 and amendments thereto furnished to us under Rule 16a-3(d) of the Securities Exchange Act of 1934 during the fiscal year ended December 31, 2018 and Forms 5 and amendments thereto furnished to us with respect to the fiscal year ended December 31, 2018, as well as any written representation from a reporting person that no Form 5 is required, we are not aware that any officer, director or 10% or greater shareholder failed to file on a timely basis, as disclosed in the aforementioned Forms, reports required by Section 16(a) of the Securities Exchange Act of 1934 during the fiscal year ended December 31, 2018.

Code of Ethics

We have adopted a code of ethics that applies to our executive officers and other employees. A copy of the Code of Ethics will be sent, free of charge, to any person who sends a written request for a copy to Jeanne Rickert, Secretary, PEN Inc., 701 Brickell Avenue, Suite 1550, Miami, Florida 33131.

Board Leadership Structure and Board's Role in Risk Oversight

Our Chief Executive Officer also serves as the Chairman of our board of directors and we have not designated any of our independent directors as a "lead director." Our board of directors believes that by combining the role of Chairman with the Chief Executive Officer, the Company will unify under one vision to better focus its limited resources. Because of his background, our Chairman brings to the Board and to the task a perspective that combines the operational experience of a member of management with the oversight focus of a member of the Board.

Risk is inherent within every business, and how well a business manages risk can ultimately determine its success. We face a variety of risks, including credit risk, interest rate risk, liquidity risk, operational risk, strategic risk and reputation risk. Management is responsible for the day-to-day management of the risks we face, while the Board has responsibility for the oversight of risk management. Taking its risk oversight role, the Board of Directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed. To do this, our directors meet regularly with management to discuss strategy and risks we face.

Board Committees and Director Independence

Our securities are not quoted on an exchange that requires a majority of our Board members to be independent and we are not currently otherwise subject to any law, rule or regulation requiring that all or any portion of our Board of Directors include "independent" directors, nor are we required to establish or maintain an Audit Committee or other committee of our Board of Directors. Our board has determined that Messrs. Holmes and Westerman are "independent" as defined by the NASDAQ Marketplace rules.

The Board does not have standing compensation or nominating committees. The Board does not believe these committees are necessary based on the size of our company and the current levels of compensation to corporate officers. We will consider establishing compensation and nominating committees at the appropriate time.

The entire Board of Directors participates in the consideration of compensation issues relating to the Chairman. Candidates for director nominees are reviewed in the context of the current composition of the Board and the operating and strategic challenges that we face in the next few years. In conducting this assessment, we consider skills, diversity, age, and such other factors as it deems appropriate given the current needs of the Board and our company, to maintain a balance of knowledge, experience and capability. The process for identifying and evaluating nominees for director, including nominees recommended by stockholders, will involve compiling names of potentially eligible candidates, conducting background and reference checks, conducting interviews with the candidate and others (as schedules permit), We will seek out individuals with relevant experience to provide strategic guidance and to advise management as we operate our business and introduce new products.

Audit Committee

In February 2016, the Board created an audit committee. It is charged with overseeing (1) the integrity of our financial statements and accounting and financial reporting processes; (2) our compliance with legal and regulatory requirements; (3) the performance of our independent auditor and the qualifications and independence of that firm; (4) our system of disclosure, internal controls and compliance with our Code of Conduct. Howard Westerman is the sole director on the audit committee. He is not an audit committee financial expert.

Report of the Audit Committee

The audit committee (the “Committee”) oversees the Company’s financial reporting process on behalf of the Board of Directors. Management has the primary responsibility for the financial statements and the reporting process, including internal control systems. The Company’s independent registered public accounting firm is responsible for expressing an opinion on the conformity of the company’s audited financial statements with U.S. generally accepted accounting principles.

In fulfilling its oversight responsibilities, the Committee reviewed and discussed with management the audited financial statements in the Annual Report on Form 10-K for the fiscal year ended December 31, 2018, including discussions of the accounting principles, the reasonableness of significant judgments and the clarity of disclosures in the consolidated financial statements.

In addition, the Committee discussed with the independent registered public accounting firm the matters required to be discussed by the Public Company Accounting Oversight Board’s Auditing Standard No. 16 “Communications with audit Committees.” The Committee met with the independent registered public accounting firm, with and without management present, to discuss the results of that firm’s examinations and the overall quality of the Company’s financial reporting. In addition, the Committee has reviewed and discussed with management management’s report on internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002.

The Committee has received the written disclosures and the letter from the independent registered public accounting firm required by the applicable requirements of the Public Company Accounting Oversight Board regarding the independent registered accounting firm’s communications with the Committee concerning independence and has discussed with the independent registered accounting firm the independence of that firm.

In reliance on the reviews and discussions described in this report, the Committee recommends to the Board of the Directors (and the Board has approved) the inclusion of the audited financial statements in the Annual Report on Form 10-K for the fiscal year ended December 31, 2018 filed with the SEC.

Stockholder Nominations

To nominate candidates for service as a director on our board a stockholder must hold at least \$2,000 in value of shares entitled to vote in the election of directors. Notice must be given not less than 60 or more than 90 days before the meeting. If less than 75-days’ notice is given of the date of the meeting, the stockholder’s notice is due not more than 10 days after notice of the meeting is given or after public disclosure of the date of the meeting, whichever is first. The notice must include information about a proposed candidate: the class and number of shares of stock held of record, owned beneficially and represented by proxy by the nominating shareholder or any person directly or indirectly controlling, controlled by, under common control with or acting in concert with the nominating shareholder (which we refer to as a “shareholder associated person”), and by each person to be nominated such information to be as of the record date for the meeting and as of the date of such notice; a description of all contracts, arrangements, understandings or relationships between (a) the shareholder making the nomination and any shareholder associated person that relate to the nomination, (b) the shareholder making the nomination and the proposed nominee and (c) the shareholder making the nomination, the proposed nominee or any shareholder associated person and any other person or persons that relate to the nomination.

Item 11. Executive Compensation

SUMMARY COMPENSATION TABLE

The table below sets forth certain compensation information for: (i) our principal executive officer or other individual serving in a similar capacity during our fiscal year ended December 31, 2018; (ii) our two most highly compensated executive officers other than our principal executive officer who were serving as executive officers at December 31, 2018 whose compensation exceed \$100,000; and (iii) up to two additional individuals for whom disclosure would have been required but for the fact that the individual was not serving as an executive officer at December 31, 2018. Compensation information is shown for the fiscal years ended December 31, 2018 and December 31, 2017

We sometimes refer to these individuals to as the “named executive officers” as that term is defined under Rule 3b-7 of the Securities Exchange Act of 1934. The value attributable to any stock or option awards is computed in accordance with ASC Topic 718. None of our named executive officers received compensation in the form of Non-Equity Incentive Plan Compensation or Nonqualified Deferred Compensation Earnings in fiscal 2018 and fiscal 2017. The value of stock awards represents the grant date fair value of awards granted with respect to fiscal 2018 and fiscal 2017 in accordance with ASC Topic 718. Pursuant to Securities and Exchange Commission rules, the amounts shown exclude the impact of estimated forfeitures related to service-based vesting conditions. Our methodology, including its underlying estimates and assumptions used in calculating these values, is set forth in Note 2 to our audited financial statements for the fiscal year ended December 31, 2018.

For stock awards, these shares were valued on the grant date based on the quoted trading price of the stock on such date. We did not grant any stock options to named executive officers in 2018 or 2017.

Name & Principal Position	Year	Salary	Stock Awards (1)	All Other Compensation	Total
Tom J. Berman, President (2)	2018	-	\$ 2,000	\$ 30,000	\$ 32,000
Scott E. Rickert, Chairman (3)	2018	\$ 12,000(4)	\$ 8,000	\$ -	\$ 20,000
	2017	\$ 157,962(5)	\$ 14,000	\$ -	\$ 171,962
Jeanne M. Rickert, Secretary and General Counsel (6)	2018	\$ 12,000(7)	\$ 8,000	\$ -	\$ 20,000
	2017	\$ 115,385(8)	\$ 14,000	\$ -	\$ 129,385

- (1) All directors are compensated for service on our Board. The compensation in this column reflects awards for attending Board meetings in 2018.
- (2) Mr. Berman was elected to the Board in October 2018 and elected President on April 3, 2019. Compensation was paid in 2018 to Mr. Berman’s law firm at the rate of \$10,000 per month starting in October.
- (3) Scott Rickert has served as our Chairman of the Board of Directors since August 22, 2014. Before that, he served as CEO of Nanofilm and NanoHolding.
- (4) In connection with the investment by PEN Comeback, LLC in October, 2018, Mr. Rickert agreed to forgive any unpaid salary and to take a salary of \$1,000 per month for 2018 and 2019. This column reflects salary earned for the year. Of this, \$4,000 was paid in cash and the balance of \$8,000 remains accrued and unpaid.
- (5) At the end of 2017, \$47,038 of Mr. Rickert’s salary of \$205,000 was accrued and unpaid. In connection with the investment by PEN Comeback, LLC, the unpaid portion was forgiven.
- (6) Jeanne Rickert has served as our Secretary and General Counsel since August 27, 2014. Previously, she served in those roles for Nanofilm and NanoHolding.
- (7) In connection with the investment by PEN Comeback, LLC, Ms. Rickert agreed to forgive any unpaid salary and to take a salary of \$1,000 per month for 2018 and 2019. This column reflects salary earned for the year. Of this, \$4,000 was paid in cash and the balance of \$8,000 remains accrued and unpaid.
- (8) At the end of 2017, \$34,615 of Ms. Rickert’s salary of \$150,000 was accrued and unpaid. In connection with the investment by PEN Comeback, LLC, the unpaid portion was forgiven.

Neither Scott or Jeanne Rickert has an employment agreement. Mr. Berman's contract runs from April 1, 2019 through December 31, 2020. His salary is \$12,500 per month in 2019 and increases to \$15,000 per month for 2020. Mr. Berman is also entitled to a cash bonus of 10% of the amount by which revenue at PEN Brands for any calendar quarter of 2019 or 2020 exceeds \$450,000, subject to an annual cap on the cash bonus payment of \$200,000 for each year. If he is terminated other than for cause, he will still be entitled to earn the bonus for 2019 and 2020, but the bonus rate will only be 10% for revenue booked after his departure. If the cap on the cash payment for the bonus is reached in either year, Mr. Berman will vest in options to purchase an additional 100,000 shares of stock at a price of \$0.55 per share.

Outstanding Equity Awards at Fiscal Year End Table

The following table provides information concerning unexercised options, stock that has not vested and equity incentive plan awards for each named executive officer outstanding at December 31, 2018:

Name	Option Awards					Stock Awards			
	Number of Securities Underlying Unexercised options - exercisable	Number of Securities Underlying Unexercised Options - unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock that have not Vested	Market Value of Shares or Units of Stock that have not Vested	Equity Incentive Plan Awards: Number of Shares, Units or Rights that have not Vested	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Rights that have not Vested
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Tom J. Berman	0	0	0	0		0		0	
Scott E Rickert	0	0	0	0		0		0	
Jeanne M. Rickert	0	0	0	0		0		0	

Director Compensation

We paid our directors the amounts shown below during the fiscal year ended December 31, 2018. Amounts paid to Tom Berman, Scott Rickert and Jeanne Rickert are shown in the summary Compensation Table for named executive officers.

Name	Fees earned or paid in cash	Stock Awards	Option Awards(1)	All Other Compensation	Total
Ronald J. Berman	\$ 0	\$ 8,000	-0-	-0-	\$ 8,000
Douglas Q. Holmes	\$ 0	\$ 8,000	-0-	-0-	\$ 8,000
Howard Westerman	\$ 0	\$ 8,000	-0-	-0-	\$ 8,000

- (1) No option awards were made to Directors or executive officers in 2018 or 2017. Mr. Berman holds options for 1,744 shares and Mr. Westerman holds options for 1,059 shares from prior period grants.

All directors are compensated for 2018 with a fee of \$2,000 per meeting. The fee is payable in shares of our Class A common stock.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Equity Compensation Plans

See table and related explanations under item 5 above regarding Equity Compensation Plans.

Security Ownership of Certain Beneficial Owners and Management

Set forth in the following table is the indicated information as of October 7, 2019 with respect to each person who is known to us to be the beneficial owner of more than five percent of our Class A common stock.

Name and address of beneficial owner	Amount and nature of beneficial ownership	Percent of Class(1)
Ronald J. Berman 701 Brickell Ave., Suite 1550 Miami, FL 33131	1,041,177(2)	10%(3)
Scott E. Rickert 701 Brickell Ave., Suite 1550 Miami, FL 33131	563,601(4)	6%(5)
Jeanne M. Rickert 701 Brickell Ave., Suite 1550 Miami, FL 33131	558,476(5)	6%

- (1) Percentages assume that all derivative securities presently exercisable have been exercised and reflect the holder's economic ownership.
- (2) Mr. Berman owns directly 404,505 shares and options for 1744 shares. The balance of his ownership is held indirectly through an investment in PEN Comeback LLC.
- (3) Mr. Berman and Tom Berman share equally the voting and dispositive power over the holdings of both PEN Comeback, LLC and PEN Comeback 2, LLC. By virtue of his role at PEN Comeback, Mr. Berman shares with Tom Berman voting control over the securities held by that entity. By virtue of his role at PEN Comeback and PEN Comeback 2, Mr. Berman's voting control is 49% of the fully diluted shares outstanding.
- (4) As the sole general partner of Rickert Family, Limited partnership, Mr. Rickert has voting and investment power over the 1,564,499 shares of Class A common stock held by the partnership. Mr. Rickert disclaims beneficial ownership of the shares for which he does not have a pecuniary interest.
- (5) By virtue of his role as general partner of the family limited partnership, Mr. Rickert's voting power is 16% of the fully diluted shares outstanding.

Set forth in the table below is information as of October 7, 2019 with respect to the beneficial ownership of Class A common stock by our directors and Named Executive Officers.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership (1)(2)	Economic Percentage Ownership	Voting and Dispositive Power
Ronald J Berman	1,041,177	10.2%	49%
Tom J. Berman	263,444	2.6%	46%
Douglas Q. Holmes	33,748	(5)	(5)
Jeanne M. Rickert (3)	558,476	5.5%	(5)
Scott E. Rickert (4)	563,601	5.5%	16%
Jacqueline M. Soptick	76,191	(5)	(5)
Howard Westerman	246,183	2.4%	1%
All directors and officers as a group	2,709,085	26.4	67%

(1) Includes options held directly by the following individuals that are presently exercisable:

Mr. Berman	1,744
Ms. Soptick	479
Mr. Westerman	1,059

(2) Includes indirect ownership by Messrs. Tom and Ron Berman and Mr. Westerman in warrants held by PEN Comeback LLC that are presently exercisable.

(3) Shares reported include 42,623 shares owned directly, and an additional 1,564,499 shares of Class A common stock beneficially owned through Rickert Family, Limited Partnership. The shares owned by Rickert Family, Limited Partnership are also included in the shares owned by Mr. Rickert because of his voting and dispositive power of those shares.

(4) Shares reported include 42,623 shares owned directly, and an additional 1,564,499 shares over which Mr. Rickert has sole voting and dispositive power as the sole general partner of Rickert Family, Limited Partnership. Mr. Rickert disclaims beneficial ownership of 1,041,956 shares held by Rickert Family, Limited Partnership in which he does not have a pecuniary interest.

(5) Ownership represents less than 1%.

Item 13. Certain Relationships and Related Transaction, and Director Independence.

Until May 2017, Carl Zeiss, Inc. owned more than 5% of our Class Z common stock and until that time James Sharp, President and Chief Executive Officer of Carl Zeiss, Inc., served as one of our directors. During the year ended December 31, 2017, we sold products to a Zeiss related company. Sales to the related party totaled \$168,255 for the year ended December 31, 2017. Accounts receivable from the related party totaled \$14,266 at December 31, 2017.

Our board has determined that Messrs. Holmes and Westerman are “independent” as defined by the NASDAQ Marketplace rules.

Corporate governance.

See discussion under item 10 above.

Item 14. Principal Accounting Fees and Services

The following table sets forth the fees billed by our principal independent accountants, Tama, Budaj and Raab for the fiscal year ended 2018, and Salberg & Company, P.A., for the fiscal year ended 2017 for the categories of services indicated.

Category	Years Ended December 31,	
	2018	2017
Audit Fees	\$ 47,500	\$ 81,000
Audit Related Fees	\$ -	\$ -
Tax Fees	\$ 4,500	\$ -
All Other Fees	\$ -	\$ -

Audit fees. Consists of fees billed for the audit of our annual financial statements, review of our Form 10-K, review of our interim financial statements included in our Form 10-Q and services that are normally provided by the accountant in connection with year-end statutory and regulatory filings or engagements.

Audit-related fees. Consists of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of our financial statements and are not reported under "Audit Fees", review of our Forms 8-K filings and services that are normally provided by the accountant in connection with non-year-end statutory and regulatory filings or engagements.

Tax fees. Consists of professional services rendered by a company aligned with our principal accountant for tax compliance, tax advice and tax planning.

Other fees. The services provided by our accountants within this category consisted of advice and other services relating to SEC matters, registration statement review, accounting issues and client conferences.

PART IV

Item 15. Exhibits, Financial Statement Schedules

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of PEN Inc. (incorporated herein by reference to Annex C, Exhibit B-1 of the Company's Proxy Statement filed with the SEC on July 3, 2014).
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of PEN Inc. (incorporated herein by reference to Exhibit 3.1 of the Company's Form 8-K filed with the SEC on January 26, 2016).
3.3	Bylaws of PEN Inc. (incorporated herein by reference to Annex C, Exhibit B-2 of the Company's Proxy Statement filed with the SEC on July 3, 2014).
4.1	Piggyback Registration Rights Agreement, dated March 10, 2014, between Douglas P. Baker and the Company (incorporated herein by reference to the Company's Form 8-K filed with the Commission on March 11, 2014).
4.2	Restricted Stock Agreement by and between PEN Inc. and Zvi Yaniv dated August 27, 2014 (incorporated herein by reference to Exhibit 10.7, Annex B of the Company's Form 8-K filed with the SEC on March 11, 2014).
4.3	Piggyback Registration Rights Agreement by and between PEN Inc. and Zvi Yaniv dated August 27, 2014 (incorporated herein by reference to Exhibit 10.7, Annex C of the Company's Form 8-K filed with the SEC on March 11, 2014).

- 4.4 [Registration Rights Agreement, dated October 16, 2018, by and between PEN Inc., and PEN Comeback, LLC \(incorporated herein by reference to Exhibit 4.1 of the Company's Form 10Q filed with the SEC on May 29, 2019\).](#)
- 4.5 [Form of Warrant issued to PEN Comeback, LLC \(incorporated herein by reference to Exhibit 4.2 of the Company's Form 10Q filed with the SEC on May 29, 2019\).](#)
- 4.6 [Form of Option issued to PEN Comeback, LLC \(incorporated herein by reference to Exhibit 4.3 of the Company's Form 10Q filed with the SEC on May 29, 2019\).](#)
- 4.7 [Form of Warrant Option issued to PEN Comeback, LLC \(incorporated herein by reference to Exhibit 4.4 of the Company's Form 10Q filed with the SEC on May 29, 2019\).](#)
- 4.8*+ [Option dated April 4, 2019 issued to Tom J. Berman](#)
- 4.9* [Registration Rights Agreement, dated September 6, 2019, by and between PEN Inc., and PEN Comeback 2, LLC](#)
- 4.10* [Form of Warrant issued to PEN Comeback 2, LLC](#)
- 10.1 [Loan and Security Agreement effective as of April 4, 2014 by and between Nanofilm Ltd. And Mackinac Commercial Credit, LLC \(incorporated herein by reference to the Company's Form 10Q filed with the Commission on November 14, 2014\).](#)
- 10.2 [First Amendment to Loan and Security Agreement, effective as of April 4, 2015 between Nanofilm, Ltd. And Mackinac Commercial Credit, LLC \(incorporated herein by reference to the Company's Form 10K filed with the Commission on June 15, 2018\).](#)
- 10.3 [Second Amendment to Loan and Security Agreement, dated April 3, 2017 between Nanofilm, Ltd. And Mackinac Commercial Credit ABL Division of MBank \(incorporated herein by reference to Exhibit 10.1 of the Company's form 10-Q filed with the Commission on May 22, 2017\).](#)
- 10.4 [Amended and Restated Revolving Credit Loan Note, dated April 3 2017 to Mackinac Commercial Credit ABL Division of MBank from Nanofilm, Ltd. \(incorporated herein by reference to Exhibit 10.2 of the Company's form 10-Q filed with the Commission on May 22, 2017\).](#)
- 10.5 [Third Amendment to Loan and Security Agreement and Loan documents, dated October 17, 2017 between PEN Brands LLC and Mackinac Commercial Credit ABL Division of MBank \(incorporated herein by reference to Exhibit 10.1 of the Company's form 10-Q filed with the Commission on November 14, 2017\).](#)
- 10.6 [Fourth Amendment to Loan and Security Agreement and Loan Documents, dated March 30, 2018 between PEN Brands LLC and MBank assignee of Mackinac Commercial Credit \(incorporated herein by reference to the Company's Form 10K filed with the Commission on June 15, 2018\).](#)
- 10.7 [Fifth Amendment to Loan and Security Agreement and Loan Documents, dated as of August 8, 2018 by and between PEN Brands LLC and MBank \(incorporated herein by reference to the Company's Form 10K filed with the Commission on June 15, 2018\).](#)
- 10.8 [Commercial Security Agreement, dated February 10, 2015, between Nanofilm, Ltd. and KeyBank National Association \(incorporated herein by reference to Exhibit 10.13 of the Company's form 10-K filed with the Commission on April 10, 2015\).](#)
- 10.9* [Amendment to Commercial Promissory Note dated June 18, 2019, between PEN Brands LLC and KeyBank National Association](#)

- 10.10 [Amended and Restated 2002 Equity Compensation Plan. \(incorporated herein by reference from the Company's Form 8-K filed with the SEC on December 12, 2007\).](#)
- 10.11 [Applied Nanotech Holdings, Inc. 2012 Equity Compensation Plan. \(incorporated herein by reference from the Company's Form 8-K filed with the SEC on April 27, 2012\).](#)
- 10.12 [Nanofilm Ltd. Equity Credit Incentive Program \(incorporated herein by reference to Exhibit 10.16 of the Company's form 10-K filed with the Commission on April 10, 2015\).](#)
- 10.13 [Nanofilm Stock Appreciation Rights Plan \(incorporated herein by reference to Exhibit 10.17 of the Company's form 10-K filed with the Commission on April 10, 2015\).](#)
- 10.14 [PEN Inc. 2015 Equity Incentive Plan \(incorporated herein by reference to Exhibit 10.17 of the Company's form 10-K filed with the Commission on March 30, 2016\).](#)
- 21.1* [Subsidiaries of the Registrant](#)
- 31.1* [Rule 13a-14\(a\)/15d-14\(a\) Certificate of Principal Executive Officer](#)
- 31.2* [Rule 13a-14\(a\)/15d-14\(a\) Certificate of Chief Financial Officer](#)
- 32.1* [Section 1350 Certificate of Principal Executive Officer and Chief Financial Officer](#)
- 101.INS* XBRL Instance Document
- 101.SCH* XBRL Taxonomy Extension Schema
- 101.CAL* XBRL Taxonomy Extension Calculation
- 101.DEF* XBRL Taxonomy Extension Definition
- 101.LAB* XBRL Taxonomy Extension Labels
- 101.PRE* XBRL Taxonomy Extension Presentation Linkbase
- + Management contract or compensatory plan or arrangement.
- * Filed herewith.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PEN Inc.
(Registrant)

By: /s/ Jeanne M. Rickert

Jeanne M. Rickert
Secretary

Date: November 13, 2019

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Jeanne M. Rickert as his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to the annual report, which amendments may make such changes in the annual report as the attorney-in-fact deems appropriate and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that such attorney-in-fact and agent or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Scott R. Rickert</u> Scott E Rickert	Chairman	November 13, 2019
<u>/s/ Jacqueline M. Soptick</u> Jacqueline M. Soptick	Chief Accounting Officer (principal financial and accounting officer)	November 13, 2019
<u>/s/ Tom J. Berman</u> Tom J. Berman	Director & President (principal executive officer)	November 13, 2019
<u>/s/ Ronald J. Berman</u> Ronald J. Berman	Director	November 13, 2019
<u>/s/ Douglas Q. Holmes</u> Douglas Q. Holmes	Director	November 13, 2019
<u>/s/ Jeanne Rickert</u> Jeanne M. Rickert	Director	November 13, 2019
<u>/s/ Scott E. Rickert</u> Scott E. Rickert	Director	November 13, 2019
<u>/s/ Howard Westerman</u> Howard Westerman	Director	November 13, 2019

OPTION TO PURCHASE
SHARES OF CLASS A COMMON STOCK OF
PEN INC.

Dated: April 3, 2019

This certifies that Tom J. Berman (the “Holder”) is entitled to purchase, at a price of \$0.55 per share (the “Exercise Price”) subject to adjustment under Section 4 below), from PEN Inc., a Delaware corporation (the “Company”), up to 550,000 fully paid and nonassessable shares (the “Option Shares”) of Class A Common Stock, \$0.0001 par value per share (the “Class A Stock”) (subject to vesting under Section 1).

1. Vesting; Exercise; Delivery & Acknowledgement.

1.1. Vesting. This Option is subject to vesting as follows:

<u>The right to purchase:</u>	<u>Consisting of:</u>	<u>Is vested on:</u>
Tranche 1	50,000 Option Shares	The date of grant
Tranche 2	75,000 Option Shares	December 31, 2019
Tranche 3	100,000 Option Shares	June 30, 2020
Tranche 4	125,000 Option Shares	December 31, 2020
Tranche 5	100,000 Option Shares	If the Bonus Cap is reached for 2019
Tranche 6	100,000 Option Shares	If the Bonus Cap is reached for 2020

“Bonus Cap” means the \$200,000 cap on the cash bonus payable under his Employment Agreement dated as of April 3, 2019.

1.2. Exercise. The vested Tranches of this option are exercisable from time to time, in whole or in part, from and after the date vesting occurs for that Tranche up to and including 5:00 p.m. (Eastern Time) on the 5th anniversary of the date of vesting for that Tranche (the “Expiration Time”), upon delivery to the Company of the Form of (i) the Exercise Notice attached as Appendix A duly completed and executed. (ii) payment of the aggregate Exercise Price for the number of shares for which this Option is being exercised, and (iii) payment of the Tax Amount Due (as defined in section 2.2).

1.3. Delivery. Upon exercise and payment under Section 1.2, the Company will (x) issue and deliver to the Holder, at the Company’s expense, a statement for the Option Shares that were purchased or, (y) if available, and upon request and at the expense of the Holder, electronically deliver the Option Shares purchased to the Holder’s account at The Depository Trust Company (“DTC”) or similar organization. Any other securities or property to which the Holder may be entitled upon exercise shall be delivered to the Holder. “Business Day” means any day, other than a Saturday, Sunday and any day which is a legal holiday under the Laws of the State of Ohio or Florida, or is a day on which banking institutions located in the State of Ohio or Florida are authorized or required by law or other governmental action to close.

1.4. Acknowledgement. In the case of a purchase of less than all the Option Shares in any Tranche, the Company will execute and deliver to the Holder, within ten days after rights represented by this Option have been exercised, an Acknowledgement in the form of Appendix B indicating the number of Option Shares which remain in that Tranche, if any.

2. Payment of Exercise Price and Applicable Taxes.

2.1. Exercise Price. The aggregate Exercise Price for Option Shares being purchased hereunder may be paid by (i) cash or wire transfer of immediately available funds to a bank account specified by the Company, or (ii) certified or bank cashier’s check. The Holder may also, in its sole discretion, satisfy its obligation to pay the aggregate purchase price for Option Shares through a “cashless exercise,” in which event the Company shall issue to the Holder the number of determined as follows:

$$X = \frac{Y(A-B)}{A}$$

where:

X = the number of Option Shares on which withholding is due.

Y = the total number of Option Shares with respect to which this Option is being exercised.

A = the Closing Sale Price for the Trading Day immediately prior to the date of receipt of the Form of Exercise Notice by the Company.

B = the Exercise Price in effect for the Option Shares at the time of exercise.

“Trading Day” means a day on which (a) the OTC Market or, if the Class A Stock is not trading on the OTC Market, the principal United States national or regional securities exchange on which the Class A Stock is then listed or open for trading, in each case, with a scheduled closing time of 4:00 p.m. (New York City time) or the then-standard closing time for regular trading on the relevant exchange or market and (b) a Closing Sale Price for the Class A Stock is available on such securities exchange or market. If the Class A Stock is not so listed, a “Trading Day” means any day on which banking institutions in the State of New York are open for business.

“Closing Sale Price” of the Class A Stock on any date means the closing per share sale price (or, if no closing sales price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) at 4:00 p.m. (New York City time) on such date as reported by the principal United States national or regional securities exchange on which the Class A Stock is listed or, if the Class A Stock is not so listed, as reported by OTC Markets Group Inc. or a similar organization. If the Class A Stock is not so quoted, the “Closing Sales Price” shall be the average of the mid-point of the last bid and ask prices for the Class A Stock on the relevant date from each of at least three nationally recognized independent investment banking firms selected by the Company for this purpose.

- 2.2 Applicable Taxes. The holder shall pay to the Company a payment equal to the Employee Rate multiplied by $X(A-B)$ (as X, A, and B are defined above, the “Tax Amount Due”). “Employee Rate” means the sum of the rates for applicable federal, state and local withholding taxes that would be deducted from an employee’s wages if the spread between the option price and fair market value was paid to the employee in cash, but specifically excludes any taxes due from the employer. The Tax Amount Due may be paid by (i) cash or wire transfer of immediately available funds to a bank account specified by the Company, or (ii) certified or bank cashier’s check.
3. Shares to be Fully Paid. All Option Shares which may be issued upon the exercise of the rights represented by this Option will, upon issuance, be duly authorized, validly issued, fully paid and nonassessable. The Company will take all action as may be reasonably necessary to assure that the shares of Class A Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system, if applicable, upon which the Class A Stock may be listed.
4. Adjustment of Exercise Price and Number of Shares. The Exercise Price and the number of Option Shares purchasable are subject to adjustment as described in this Section 4. Upon each adjustment of the Exercise Price, the Holder shall thereafter be entitled to purchase, at the Exercise Price resulting from the adjustment, the number of shares obtained by multiplying the Exercise Price in effect immediately prior to the adjustment by the number of shares purchasable pursuant hereto immediately prior to the adjustment, and dividing the product by the Exercise Price resulting from the adjustment.
- 4.1 Subdivisions, Combinations and Dividends. If the Company (x) pays a dividend or makes a distribution, in shares of Class A Stock, on any all or substantially all shares of Class A Stock, (y) splits or subdivides its outstanding Class A Stock into a greater number of shares, or (z) combines its outstanding Class A Stock into a smaller number of shares, then in each case the Exercise Price in effect immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the number of shares of Class A Stock that the Holder would have owned or would have been entitled to receive after the occurrence of any of the events described above had this Option been exercised immediately prior to the event. An adjustment made under this Section 4.1 will be effective immediately after the close of business on the dividend or distribution date in the case of a dividend or distribution and will be effective immediately after the close of business on the effective date in the case of a subdivision, split or combination, as the case may be. If as a result of an adjustment under this Section 4.1, the Holder is entitled to receive any shares of the Company other than shares of Class A Stock, thereafter the number of other shares receivable upon exercise of this Option shall be subject to adjustment on terms as nearly equivalent as practicable to the provisions of this Section 4 with respect to the Class A Stock.
-

- 4.2 **Reclassification.** If any reclassification of the capital stock of the Company, by merger, consolidation, reorganization or otherwise, is effected so that holders of Class A Stock are entitled to receive stock, securities, or other assets or property, then, as a condition of the reclassification, lawful and adequate provisions shall be made whereby the Holder shall thereafter have the right to purchase and receive (in lieu of the shares of Class A Stock purchasable and receivable upon the exercise of this Option immediately prior to the reclassification) the shares of stock, securities or other assets or property as may be issued or payable with respect to or in exchange for a number of outstanding shares of Class A Stock equal to the number of shares of Class A Stock purchasable and receivable upon the exercise of this Option immediately prior to the reclassification. If the Company is acquired in an all cash transaction, the Holder shall have the right to receive cash equal to the value of the Option Shares issuable upon a cashless exercise of this Option immediately prior to the closing of the transaction. In any reclassification described above, appropriate provision shall be made with respect to the rights and interests of the Holder so that the provisions hereof (including, without limitation, provisions for adjustments of the Exercise Price and of the number of shares purchasable and receivable upon the exercise of this Option) shall continue to apply in relation to any shares of stock, or other securities or assets thereafter deliverable upon the exercise hereof.
- 4.3 **Pro Rata Distributions.** If the Company, at any time while this Option is outstanding, distributes to all holders of Class A Stock for no consideration (w) evidences of its indebtedness, (x) any security (other than a distribution of Class A Stock covered by the preceding paragraphs), (y) rights or options to subscribe for or purchase any security, or (z) any other asset, including cash (in each case, "Distributed Property"), then, upon any exercise of this Option that occurs after the record date for determination of stockholders entitled to receive the distribution, the Holder shall be entitled to receive, in addition to the Option Shares, the Distributed Property that the Holder would have been entitled to receive if the Holder been the record holder of the Option Shares immediately prior to the record date.
- 4.4 **Notice of Adjustment.** Upon any adjustment of the Exercise Price or any increase or decrease in the number of Options Shares purchasable, the Company shall give notice to the Holder. The notice shall state the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of Option Shares purchasable setting forth in reasonable detail the method of calculation and the facts upon which the calculation is based.
- 4.5 **Other Notices.** If at any time: (1) the Company declares any cash dividend upon its shares of Class A Stock; (2) there is any capital reorganization or reclassification of the capital stock of the Company; (3) the Company is acquired in an all cash transaction; or (4) there is a voluntary or involuntary dissolution, liquidation or winding-up of the Company, then the Company notice to the Holder (a) at least ten days prior to the date on which the books of the Company will close, or the record date for the dividend, cash payment or for determining rights to vote in respect of any the reorganization or reclassification, and (b) if a reorganization or reclassification, at least ten days prior to the date when the same shall take place.
5. **No Voting or Dividend Rights.** Nothing contained in this Option shall be construed as conferring upon the Holder the right to vote or to consent to receive notice as a stockholder of the Company or any other matters or any rights whatsoever as a stockholder of the Company prior to the purchase of Option Shares and then only as to the shares purchased in accordance with its terms. No dividends or interest shall be payable or accrued in respect of this Option or the interest represented hereby or the shares purchasable hereunder until, and only to the extent that, Option Shares are purchased hereunder.
6. **Transfer.** This Option and the rights granted to Holder are not transferable by the Holder and may not be transferred, in whole or in part, except that vested Tranches may be exercised by the legal representative of the Holder for a period of 30 days after his death or disability.
7. **Lost or Mutilated Options.** Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction, or mutilation of this Option and, in the case of any loss, theft or destruction, upon receipt of an indemnity reasonably satisfactory to the Company, or in the case of any mutilation upon surrender and cancellation of the Option, the Company, at its expense, will make and deliver a new Option, of like tenor, in lieu of the lost, stolen, destroyed or mutilated Option.
8. **Modification and Waiver.** Any term of this Option may be amended by a writing signed by the Company and the Holder. The observance of any term of this Option may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a writing signed by the party against whom the waiver is to be enforced.
9. **Successors and Assigns.** Subject to applicable securities laws, this Option and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and of the Holder.
10. **Severability.** Wherever possible, each provision of this Option shall be interpreted to be effective and valid under applicable law, but if any provision of this Option shall be prohibited by or invalid under applicable law, the provision shall be ineffective to the extent of the prohibition or invalidity, without invalidating the remainder of the provisions or the remaining provisions of this Option.
11. **Notices.** All notices, requests and other communications hereunder shall be in writing and shall be given and shall be delivered personally or via a messenger service (notice given upon receipt), or mailed with confirming e-mail (notice deemed given upon earlier of e-mail receipt or receipt of hard copy) to the party's corporate address or other address on record with the other parties.
12. **Governing Law.** This Option is to be construed in accordance with and governed by the laws of the State of Delaware without regard to its principles of conflicts of laws.

IN WITNESS WHEREOF, the Company has caused this Option to be duly executed as of the date first above written.

PEN Inc.

By: /s/ Scott E Rickert

Scott E. Rickert, Chairman & CEO

**WARRANT TO PURCHASE
SHARES OF CLASS A COMMON STOCK OF
PEN INC.**

Dated: [date of issue]

This certifies that PEN Comeback, LLC (the “**Holder**”), for value received, is entitled to purchase, at the Stock Purchase Price (as defined below), from PEN Inc., a Delaware corporation (the “**Company**”), up to _____ fully paid and nonassessable shares (the “**Warrant Shares**”) of Class A Common Stock, \$0.0001 par value per share (the “**Class A Stock**”) (subject to adjustment under Section 4).

This Warrant will be exercisable from time to time, in whole or in part, from and after the date hereof (the “**Initial Exercise Date**”) up to and including 5:00 p.m. (Eastern Time) until the fourth anniversary of the Initial Exercise Date (the “**Expiration Time**”), upon delivery to the Company of (i) the Form of Exercise Notice attached as Appendix A duly completed and executed, (ii) payment of the aggregate Stock Purchase Price for the number of shares for which this Warrant is being exercised. The “**Stock Purchase Price**” equals \$1.50 per share of the Warrant Shares (subject to adjustment under Section 4).

1. Exercise; Delivery; Acknowledgement.

(a) **Exercise.** This Warrant is exercisable at the option of the Holder, at any time or from time to time from or after the Initial Exercise Date up to the Expiration Time for all or any part of the Warrant Shares. The Holder will be treated as the record owner of Warrant Shares as of the close of business on the date on which (i) the completed, executed form of Exercise Notice is delivered, and (ii) payment is made for the shares.

(b) **Delivery.** Upon exercise of this Warrant, the Company will, (x) within three Business Days after exercise, issue and deliver a statement for the Warrant Shares that were purchased, at the Company’s expense, to the Holder or, (y) if available, and upon request and at the expense of the Holder, within three Business Days after the rights represented by this Warrant have been so exercised, deliver the Warrant Shares by book entry, confirmed by the Company’s transfer agent.

“**Business Day**” means any day, other than a Saturday, Sunday and any day that is a legal holiday under the Laws of the State of Ohio or Florida, or is a day on which banking institutions located in the State of Ohio or Florida are authorized or required by law or other governmental action to close.

(c) **Acknowledgement.** In the case of a purchase of less than all the Warrant Shares, the Company will execute and deliver to the Holder, within ten days after the rights represented by this Warrant have been exercised, an Acknowledgement in the form of Appendix B indicating the number of Warrant Shares which remain subject to this Warrant, if any.

2. Payment for Shares. The aggregate purchase price for Warrant Shares being purchased hereunder may be paid by (i) cash or wire transfer of immediately available funds to a bank account specified by the Company, or (ii) certified or bank cashier’s check.

3. Shares to be Fully Paid. All Warrant Shares which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be duly authorized, validly issued, fully paid and nonassessable. The Company will take all action as may be reasonably necessary to assure that the shares of Class A Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any securities exchange or automated quotation system, if applicable, upon which the Class A Stock may be listed.

4. Adjustment of Stock Purchase Price and Number of Shares. The Stock Purchase Price and the number of shares purchasable upon the exercise of this Warrant shall be subject to adjustment as described in this Section 4. Upon each adjustment of the Stock Purchase Price, the Holder shall thereafter be entitled to purchase, at the Stock Purchase Price resulting from the adjustment, the number of shares obtained by multiplying the Stock Purchase Price in effect immediately prior to the adjustment by the number of shares purchasable pursuant hereto immediately prior to the adjustment, and dividing the product by the Stock Purchase Price resulting from the adjustment.

(a) Subdivisions, Combinations and Dividends. If the Company (x) pays a dividend or makes a distribution, in shares of Class A Stock, on any all or substantially all shares of Class A Stock, (y) splits or subdivides its outstanding Class A Stock into a greater number of shares, or (z) combines its outstanding Class A Stock into a smaller number of shares, then in each case the Stock Purchase Price in effect immediately prior thereto shall be adjusted so that the Holder shall be entitled to receive the number of shares of Class A Stock that the Holder would have owned or would have been entitled to receive after the occurrence of any of the events described above had this Warrant been exercised immediately prior to the event. An adjustment made under this Section 4(a) shall become effective immediately after the close of business on the dividend or distribution date in the case of a dividend or distribution and shall become effective immediately after the close of business on the effective date in the case of a subdivision, split or combination, as the case may be. If as a result of an adjustment under this Section 4(a), the Holder is entitled to receive any shares of the Company other than shares of Class A Stock, thereafter the number of other shares receivable upon exercise of this Warrant shall be subject to adjustment on terms as nearly equivalent as practicable to the provisions of this Section 4 with respect to the Class A Stock.

(b) Reclassification. If any reclassification of the capital stock of the Company, by merger, consolidation, reorganization or otherwise, is effected so that holders of Class A Stock are entitled to receive stock, securities, or other assets or property, then, as a condition of the reclassification, lawful and adequate provisions shall be made whereby the Holder shall thereafter have the right to purchase and receive (in lieu of the shares of Class A Stock purchasable and receivable upon the exercise of this Warrant immediately prior to the reclassification) the shares of stock, securities or other assets or property as may be issued or payable with respect to or in exchange for a number of outstanding shares of Class A Stock equal to the number of shares of Class A Stock purchasable and receivable upon the exercise of this Warrant immediately prior to the reclassification. If the Company is acquired in an all cash transaction, the Holder shall have the right to receive cash equal to the value of the Warrant Shares issuable upon exercise of this Warrant immediately prior to the closing of the transaction reduced by the aggregate Stock Purchase Price. In any reclassification described above, appropriate provision shall be made with respect to the rights and interests of the Holder so that the provisions hereof (including, without limitation, provisions for adjustments of the Stock Purchase Price and of the number of shares purchasable and receivable upon the exercise of this Warrant) shall continue to apply in relation to any shares of stock, or other securities or assets thereafter deliverable upon the exercise hereof.

(c) Pro Rata Distributions. If the Company, at any time while this Warrant is outstanding, distributes to all holders of Class A Stock for no consideration (w) evidences of its indebtedness, (x) any security (other than a distribution of Class A Stock covered by the preceding paragraphs), (y) rights or warrants to subscribe for or purchase any security, or (z) any other asset, including cash (in each case, "**Distributed Property**"), then, upon any exercise of this Warrant that occurs after the record date for determination of stockholders entitled to receive the distribution, the Holder shall be entitled to receive, in addition to the Warrant Shares, the Distributed Property that the Holder would have been entitled to receive if the Holder been the record holder of the Warrant Shares immediately prior to the record date.

(d) Notice of Adjustment. Upon any adjustment of the Stock Purchase Price or any increase or decrease in the number of shares purchasable upon the exercise of this Warrant, the Company shall give notice to the Holder. The notice shall state the Stock Purchase Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable upon the exercise of this Warrant, setting forth in reasonable detail the method of calculation and the facts upon which the calculation is based.

(e) Other Notices. If at any time: (1) the Company declares any cash dividend upon its shares of Class A Stock; (2) there is any capital reorganization or reclassification of the capital stock of the Company; (3) the Company is acquired in an all cash transaction; or (4) there is a voluntary or involuntary dissolution, liquidation or winding-up of the Company, then the Company notice to the Holder (a) at least ten days prior to the date on which the books of the Company will close, or the record date for the dividend, cash payment or for determining rights to vote in respect of any the reorganization or reclassification, and (b) if a reorganization or reclassification, at least ten days prior to the date when the same shall take place.

5. No Voting or Dividend Rights. Nothing contained in this Warrant shall be construed as conferring upon the Holder the right to vote or to consent to receive notice as a stockholder of the Company or any other matters or any rights whatsoever as a stockholder of the Company prior to the exercise of this Warrant. No dividends or interest shall be payable or accrued in respect of this Warrant or the interest represented hereby or the shares purchasable hereunder until, and only to the extent that, this Warrant is exercised.

6. Transfer. Subject to compliance with applicable federal and state securities laws, this Warrant and all rights hereunder may only be transferred with the consent of the Company.

7. Transfer Taxes. The issuance of any shares or other securities upon the exercise of this Warrant, and the delivery of certificates or other instruments representing the shares or other securities, shall be made without charge to the Holder for any transfer taxes. The Company shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than that of the Holder and the Company shall not be required to issue or deliver any certificate unless and until the person or persons requesting the issuance thereof shall have paid to the Company the amount of the tax or shall have established to the satisfaction of the Company that the tax has been paid.

8. Lost or Mutilated Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction, or mutilation of this Warrant and, in the case of any loss, theft or destruction, upon receipt of an indemnity reasonably satisfactory to the Company, or in the case of any mutilation upon surrender and cancellation of the Warrant, the Company, at its expense, will make and deliver a new Warrant, of like tenor, in lieu of the lost, stolen, destroyed or mutilated Warrant.

9. Modification and Waiver. Any term of this Warrant may be amended by a writing signed by the Company and the Holder. The observance of any term of this Warrant may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a writing signed by the party against whom the waiver is to be enforced.

10. Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company and the successors and permitted assigns of the Holder.

12. Severability. Wherever possible, each provision of this Warrant shall be interpreted to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, the provision shall be ineffective to the extent of the prohibition or invalidity, without invalidating the remainder of the provisions or the remaining provisions of this Warrant.

13. Notices. All notices, requests and other communications hereunder shall be in writing and shall be given and shall be delivered personally or via a messenger service (notice given upon receipt), or mailed with confirming e-mail (notice deemed given upon earlier of e-mail receipt or receipt of hard copy) to the party's corporate address or other address on record with the other parties.

14. Governing Law. This Warrant is to be construed in accordance with and governed by the laws of the State of Delaware without regard to its principles of conflicts of laws.

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed as of the date first above written.

PEN Inc.

By: _____

Scott E. Rickert, Chairman

TO: PEN Inc.
701 Brickell Ave., Suite 1550
Miami, Florida 33131
Attn: Secretary

Via e-mail: jrickert@pen-technology.com

The undersigned hereby irrevocably elects to purchase shares of Class A common stock of PEN Inc under the terms of that Warrant originally issued to _____ on _____, 2018 (the “**Warrant**”) and tenders payment under the Warrant as follows:

Number of shares being purchased: _____

Payment of \$ _____

Capitalized terms not defined in this notice have the meanings set forth in the Warrant. This notice is being sent by facsimile to the number and officer identified above and by e-mail to the address noted above.

If this notice represents the full exercise of the outstanding balance of the Warrant, either the Holder has previously surrendered the Warrant to the Company or will surrender the Warrant to the Company within ten trading days after delivery of the shares.

The address of the Holder to be shown on the records of the Company is:

The Tax ID number of the Holder is: _____

E-mail address for notices: _____

Date of notice _____

Name of Holder: _____

By: _____

ACKNOWLEDGEMENT
Of Remaining Warrant Shares

TO: [Holder]

Under the terms of that Warrant originally issued to _____ on _____ 2018 (the "**Warrant**") the Company hereby confirms that the remaining Warrant Shares following the Notice of Warrant Exercise dated _____ are:

PEN Inc.

By: _____

Registration Rights Agreement

This is the Registration Rights Agreement by and between PEN Inc., a Delaware corporation (the “**Company**”) and PEN Comeback 2 LLC, a Michigan limited liability company (“**Investor**”), dated September 6, 2019.

1. **Registrations Rights.** If the exercise by the Investor of the Warrants provides proceeds to the Company of \$1 million or more, then the Investor shall have the right to demand that the Company effect one registration under the Securities Act of all or a portion of the Shares purchased under its Subscription Agreement of even date with this Agreement and shares acquired pursuant to the Securities Offered (the “**Registrable Shares**”). The demand for registration shall be in writing and will specify the number of Registrable Shares to be registered and the intended method for disposition of the shares. The registration shall be accomplished in accordance with the provisions of the Registration Procedures set forth in Annex A. The terms “Warrants s,” and “Securities Offered” have the meaning given those terms in the Subscription Agreement between Investor and the Company of even date with this Agreement.

2. **Waiver of Jury Trial.** THE INVESTOR IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING UNDER, OR ARISING OUT OF THE TRANSACTIONS CONTEMPLATED BY, THIS AGREEMENT.

3. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware without giving effect to its principles of conflicts of laws.

4. **Counterparts; Electronic Execution.** This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which together shall be deemed to be one and the same agreement. Facsimile, “PDF” or other electronic transmission, execution or delivery of this Agreement or a counterpart thereof is legal, valid and binding.

5. **Notices.** All notices and other communications under this Agreement will be (i) in writing, (ii) sent to to the address as most recently specified by notice to the other party, (iii) will be duly given upon receipt if delivered personally or on the 2d business day after deposit with a national overnight delivery service, postage pre-paid with next day delivery guaranteed, (iv) confirmed by an e-mail to each person to whom the communication was addressed with a copy of the communication sent.

6. **Entire Agreement, Waiver, Amendment.** This Agreement is the entire agreement between Investor and the Company with respect to registration of securities of the Company. This Agreement may not be modified, changed, discharged or terminated except by an instrument in writing, signed by the party against whom any waiver, change, discharge or termination is sought.

7. **Binding Effect.** The provisions of this Agreement shall be binding upon and accrue to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns.

8. **Severability.** If any term or provision of this Agreement is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability shall not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

Name: PEN Comeback, LLC

By: PEN Comeback Manager, LLC, its Manager

By /s/ Tom J Berman

Name: Tom J. Berman, Manager

PEN Inc.

By /s/ Scott E Rickert

Scott E. Rickert, Chairman & CEO

Registration Procedures

A1. Company Obligations. PEN Comeback 2, LLC (the “**LLC**”) may demand one registration under its Registration Rights Agreement dated September 6, 2019 and upon receipt of the written request from the LLC the Company will, as expeditiously as possible:

- a. prepare and file with the Securities and Exchange Commission a registration statement with respect to the Registrable Shares identified in the demand on any form selected by counsel for the Company that is available for the sale of the Registrable Shares by the intended method of distribution and use commercially reasonable efforts including the preparation and filing of amendments and supplements to the registration statement and the prospectus used in connection therewith to cause the registration statement to become effective and remain effective for a period of not less than 90 days (or for a shorter period as required for the actual sale of the shares registered).
 - b. if requested, furnish to the LLC and underwriter, if any, within a reasonable period of time prior to filing any registration statement or prospectus or any amendments or supplements thereto, the Company will furnish to one counsel selected by LLC copies of all the documents proposed to be filed, which documents will be subject to review of such counsel and the Company shall use all reasonable efforts to comply with any request to modify the information pertaining to the LLC except that the Company shall have no obligation to modify any information if so doing would cause the prospectus to contain an untrue statement of fact or omit to state any material fact required to be stated therein or necessary to make the statements therein (in light of the circumstances under which they were made) not misleading.;
 - c. furnish to the LLC that number of copies of the registration statement, each amendment and supplement thereto, the prospectus included in the registration statement (including each preliminary prospectus), and the other documents as the LLC may reasonably request to cause the disposition of the Registrable Shares;
 - d. use commercially reasonable efforts to register or qualify the Registrable Shares under the other securities or blue sky laws of the jurisdictions as the LLC reasonably requests and do any and all other acts and things which may be reasonably necessary or advisable to consummate the disposition in those jurisdictions of the Registrable Shares owned by the LLC (except that the Company will not be required to (i) qualify generally to do business in any jurisdiction where it would not otherwise be required to qualify but for this subsection, (ii) subject itself to taxation in any jurisdiction, or (iii) consent to general service of process in any jurisdiction);
 - e. notify the LLC, at any time when a prospectus relating to any Registrable Shares is required to be delivered under the Securities Act of 1933 (the “**Securities Act**”), upon discovery that, or upon the discovery of the happening of any event as a result of which, the prospectus included in the registration statement contains an untrue statement of a material fact or omits any fact necessary to make the statements therein not misleading in the light of the circumstances under which they were made, and, at the request of the LLC, the Company will prepare and furnish to the LLC a reasonable number of copies of a supplement or amendment to the prospectus so that, as thereafter delivered to the purchasers of the Registrable Shares, the prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading in the light of the circumstances under which they were made; provided, however, that at any time, upon written notice to the LLC and until the LLC receives copies of the supplemented or amended prospectus, this period not to exceed 60 days (the “**Suspension Period**”), the Company may suspend the use or effectiveness of any registration statement (and the LLC agrees not to offer or sell any Registrable Shares pursuant to the registration statement during the Suspension Period) if the Company reasonably believes that there is or may be in existence material nonpublic information or events involving the Company, the failure of which to be disclosed in the prospectus included in the registration statement could constitute a material misstatement or omission. If the Company exercises its right to delay or suspend the use or effectiveness of a registration hereunder, the time during which the registration statement is to remain effective shall be extended by a period equal to the duration of the Suspension Period. The Company may extend the Suspension Period for an additional consecutive 60 days with the consent of the LLC, which shall not be unreasonably withheld. If so directed by the Company, the LLC shall (i) not offer to sell any Registrable Shares pursuant to the registration statement during the period in which the delay or suspension is in effect after receiving notice of the delay or suspension and (ii) use commercially reasonable efforts to deliver to the Company (at the Company’s expense) all copies, other than permanent file copies then in the LLC’s possession, of the prospectus relating to the Registrable Shares current at the time of receipt of the notice;
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- f. use commercially reasonable efforts to cause all the Registrable Shares to be listed on each securities exchange on which similar securities issued by the Company are then listed and, if not so listed, to be listed on a securities exchange and, without limiting the generality of the foregoing, to arrange for at least two market makers to register as such with respect to the Registrable Shares with the Financial Industry Regulatory Authority (“FINRA”);
- g. enter into customary agreements (including underwriting agreements in customary form) and take all other actions as the LLC or the underwriters, if any, reasonably request to expedite or facilitate the disposition of the Registrable Shares except that the board of the Company shall select, any underwriter for any underwritten offering subject to the approval of the LLC which will not be unreasonably withheld;
- h. make available for inspection by the a representative of the LLC (the “**LLC’s Representative**”), any underwriter participating in any disposition pursuant to the registration statement, and one counsel retained by the LLC’s Representative or any underwriter, all financial and other records, pertinent corporate and business documents and properties of the Company as shall be necessary to enable them to exercise their due diligence responsibility, and cause the Company’s officers, directors, employees, agents, representatives, and independent accountants to supply all the information reasonably requested by the LLC or any underwriter, attorney, accountant, or agent in connection with the registration statement;
- i. otherwise use its commercially reasonable efforts to comply with all applicable rules and regulations of the Securities and Exchange Commission, and make available to its security holders, as soon as reasonably practicable, an earnings statement covering the period of at least 12 months, beginning with the first day of the Company’s first full calendar quarter after the effective date of the registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act and Rule 158 thereunder;
- j. use commercially reasonable efforts to cause the Registrable Shares covered by the registration statement to be registered with or approved by other governmental agencies or authorities as may be necessary to enable the sellers thereof to consummate the disposition of the Registrable Shares;
- k. use commercially reasonable efforts to obtain an opinion from the Company’s outside counsel in customary form and covering matters of the type customarily covered by such opinions, which opinion shall be addressed to the underwriters and the LLC;
- l. cooperate with the LLC and each underwriter or agent participating in the disposition of the Registrable Shares and their respective counsel in connection with any filings required to be made with the FINRA; and

A2. Obligations of the LLC. The LLC agrees to: (i) promptly furnish in writing to the Company information regarding the distribution of the Registrable Shares as the Company may from time to time reasonably request, (ii) provide other information as may be legally required in connection with the registration, and (iii) take such other actions as reasonably necessary under the circumstances. The LLC will, upon receiving notice under section A1e to forthwith discontinue disposition of Registrable Shares until it receives copies of the supplemented or amended prospectus.

A3. Registration Expenses. All expenses incident to the filing of the registration statement and to the Company’s performance of or compliance with this Agreement (all these expenses being herein called “**Registration Expenses**”) shall be borne or paid by the Company, including, without limitation, all registration and filing fees, fees and expenses of compliance with securities or blue sky laws, printing expenses, messenger and delivery expenses, fees and disbursements of custodians, fees and disbursements of counsel for the Company, and all independent certified public accountants, and other persons retained by the Company except for the underwriters (except to the extent that any registered shares are being sold for the account of the Company), including, without limitation, the Company’s internal expenses (e.g., salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit or quarterly review, the expense of any liability insurance, and the expenses and fees for listing the securities to be registered on each securities exchange on which similar securities issued by the Company are then listed or, if none are so listed, on a securities exchange. The Company shall not be responsible for any discounts, commissions, transfer taxes or other fees or expenses incurred by the LLC or underwriters in connection with the sale of the Registrable Shares.

A4. Holdback Agreements.

- a) The LLC agrees, and agrees to require its members, not to effect any public sale or distribution (including sales pursuant to Rule 144) of equity securities of the Company, or any securities, options, or rights convertible into or exchangeable or exercisable for such securities, during the Applicable Period (except as part of the underwritten registration), unless any underwriters managing a registered, underwritten public offering otherwise agree. If requested by the Company, the LLC agrees to execute customary lock-up agreements with the managing underwriter(s) of an underwritten offering with a duration not to exceed the Applicable Period in the form as reasonably agreed to by the LLC. The “**Applicable Period**” shall begin seven days before and continue for 180 days following the effective date of the registration statement for the initial public offering of the Company’s equity securities and shall begin seven days before and continue for 90 days following the effective date of the registration statement for any other underwritten public offering of the Company’s equity securities.
- b) The Company agrees not to effect any public sale or distribution of its equity securities, or any securities convertible into or exchangeable or exercisable for such securities, during the Applicable Period (except as part of the underwritten registration or pursuant to registrations on Form S-4 or S-8 or any successor form), unless any underwriters managing the registered, underwritten public offering otherwise agree.

A5. Indemnification.

- a) The Company agrees to indemnify and hold harmless, to the full extent permitted by law, the LLC and its officers, directors, and members and each person who controls the LLC (within the meaning of the Securities Act) against any and all losses, claims, damages, liabilities, joint or several, together with reasonable costs and expenses (including reasonable attorney’s fees), to which the indemnified party may become subject under the Securities Act or otherwise, insofar as the losses, claims, damages, or liabilities (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of, are based upon, are caused by, or result from (i) any untrue or alleged untrue statement of material fact contained (A) in any registration statement, prospectus, or preliminary prospectus or any amendment thereof or supplement thereto covered by these Registration Procedures, or (B) in any application or other document or communication (in this Section 6 collectively called an “**application**”) executed by or on behalf of the Company or based upon written information furnished by or on behalf of the Company filed in any jurisdiction in order to qualify any securities covered by the registration statement under the “blue sky” or securities laws thereof, or (ii) any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, and the Company will reimburse the LLC and each director, officer, member, and controlling person for any legal or any other expenses incurred by them in connection with investigating or defending any such loss, claim, liability, action, or proceeding; provided, however, that the Company shall not be liable in any case to the extent that any loss, claim, damage, liability (or action or proceeding in respect thereof), or expense arises out of, is based upon, is caused by, or results from an untrue statement or alleged untrue statement, or omission or alleged omission, made in the registration statement, any prospectus or preliminary prospectus or any amendment or supplement thereto, or in any application, in reliance upon, and in conformity with, written information prepared and furnished to the Company by the LLC or other indemnified party expressly for use therein or by the LLC’s failure to deliver a copy of the registration statement or prospectus or any amendments or supplements thereto after the Company has furnished the LLC with a sufficient number of copies of the same.
 - b) In connection with any registration statement in which the LLC are participating, the LLC will furnish to the Company in writing the information and affidavits as the Company reasonably requests for use in connection with any the registration statement or prospectus and, to the full extent permitted by law, will indemnify and hold harmless the Company, and its directors, officers, members, agents, and employees and each other person who controls the Company (within the meaning of the Securities Act) against any losses, claims, damages, liabilities, joint or several, together with reasonable costs and expenses (including reasonable attorney’s fees), to which the indemnified party may become subject under the Securities Act or otherwise, insofar as the losses, claims, damages, or liabilities (or actions or proceedings, whether commenced or threatened) arise out of, are based upon, are caused by, or result from (i) any untrue or alleged untrue statement of material fact contained in the registration statement, prospectus or preliminary prospectus or any amendment thereof or supplement thereto or in any application, or (ii) any omission or alleged omission of a material fact required to be stated therein or necessary to make the statements therein not misleading, but only to the extent that the untrue statement or omission is made in the registration statement, any prospectus or preliminary prospectus or any amendment or supplement thereto, or in any application, in reliance upon and in conformity with written information prepared and furnished to the Company by the LLC expressly for use therein.
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- c) Any person entitled to indemnification hereunder will (i) give prompt written notice to the indemnifying party of any claim with respect to which it seeks indemnification (provided that the failure to give prompt notice shall not impair any person's right to indemnification hereunder to the extent the failure has not prejudiced the indemnifying party), and (ii) unless in the indemnified party's reasonable judgment a conflict of interest between the indemnified and indemnifying parties may exist with respect to the claim, permit the indemnifying party to assume the defense of the claim with counsel reasonably satisfactory to the indemnified party. If the defense is assumed, the indemnifying party will not be subject to any liability for any settlement made by the indemnified party without its consent (but consent will not be unreasonably withheld, conditioned or delayed). An indemnifying party who is not entitled to, or elects not to, assume the defense of a claim will not be obligated to pay the fees and expenses of more than one counsel for all parties indemnified by the indemnifying party with respect to the claim, unless in the reasonable judgment of any indemnified party a conflict of interest may exist between the indemnified party and any other of the indemnified parties with respect to the claim.
 - d) The indemnifying party shall not, except with the approval of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to each indemnified party of a release from all liability in respect to the claim or litigation without any payment or consideration provided by the indemnified party.
 - e) If the indemnification provided for in this Section A5 is unavailable to, or is insufficient to hold harmless, an indemnified party under the provisions above in respect to any losses, claims, damages, or liabilities referred to therein, then each indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of the losses, claims, damages, or liabilities in such proportion as is appropriate to reflect the relative fault of the Company on the one hand and of the LLC on the other hand in connection with the registration statement in connection with the statement or omissions which resulted in the losses, claims, damages, or liabilities, as well as any other relevant equitable considerations. The relative fault of the Company on the one hand and of the LLC on the other hand shall be determined by reference to, among other things, whether the untrue or alleged omission to state a material fact relates to information supplied by or relating to the Company or whether it relates to information supplied by or relating to the LLC and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent the statement or omission.
 - f) The Company and the LLC agree that it would not be just and equitable if contribution pursuant to this Section A5 were determined by pro rata allocation or by any other method of allocation which does not take account of the equitable considerations referred to in the immediately preceding paragraph. The amount paid or payable by an indemnified party shall include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by the indemnified party in connection with investigating or defending any action or claim. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of fraudulent misrepresentation.
 - g) The indemnification and contribution provided for under this Section A5 is in addition to any other rights to indemnification or contribution which any indemnified party may have pursuant to law or contract and will remain in full force and effect regardless of any investigation made or omitted by or on behalf of the indemnified party or any officer, director, employee or controlling person of the indemnified party and will survive the transfer of securities.
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AMENDMENT TO
COMMERCIAL PROMISSORY NOTE

THIS AMENDMENT, dated this 18th day of June 2019, by and between PEN BRANDS LLC, successor by merger to Nanofilm, Ltd., an Ohio limited liability company, whose principal office is located at 101 I I Sweet Valley Drive, Valley View, Ohio, 44125 (hereinafter referred to as "Borrower"), and KEYBANK NATIONAL ASSOCIATION, a national banking corporation whose principal office is located at 127 Public Square, Cleveland, Ohio, 441 14 (hereinafter referred to as "Bank");

WITNESSETH:

WHEREAS, Bank extended to Nanofilm, Ltd., n/k/a PEN Brands LLC, a certain commercial line of credit on or about February 10th, 2015 in the original principal amount of up to Three Hundred Seventy-three "Thousand and 00/100 Dollars (\$373,000.00 - the "Loan") as evidenced by the commercial Promissory' Note executed on, dated and delivered to Bank by Borrower on February 10th, 2015, in the original principal amount of Three Hundred Seventy-three Thousand and 00/100 Dollars (\$373,000.00) (hereinafter referred to as "Note", a copy of which is attached and incorporated herein as Exhibit "A"); and

WHEREAS, Borrower is presently indebted to Bank, as to said Loan, in the principal amount of \$132,665.57 (as of March 19th, 2019), evidenced by the aforesaid Note; and

WHEREAS, Borrower has become delinquent and has defaulted on the subject Loan and Note and, consequently, has requested that Bank re-amortize the balance of the Loan and extend the maturity thereof; and

WHEREAS, in furtherance of Borrower's request, Bank and Borrower have agreed to amend the Note to: (i) extend its maturity; (ii) increase the applicable non-default interest rate thereof; and (iii) modify (the payments required thereunder,

NOW THEREFORE, in consideration of the premises contained herein and for other good and valuable consideration, the receipt of which is hereby acknowledged, Borrower and Bank hereby mutually agree to amend and modify the aforementioned Note as follows, to wit:

1. Effective with the execution hereof, and subject to Bank's right to accelerate consistent with the terms of the Note, the maturity date under the Note shall be extended twenty-two (22) months from June 10th, 2020 to April 10th, 2022 (the "Maturity" or "Maturity Date"), on which date the entire balance outstanding, if any, including all interest that has accrued, shall be paid in full to Bank by Borrower.
 2. Effective with the execution hereof, the applicable non-default interest rate under the Note shall be changed from the fixed rate of four and thirty-five hundredths of one percent (4.35%) per annum to the fixed rate of six and twenty-nine hundredths of one percent (6.29%) per annum.
 3. Effective with the execution hereof the Note is hereby amended to reflect that the Loan is to be re-amortized over a term of 36 months with payments heretofore required under the Note being hereby modified *from* principal and interest payments in the amount of Six Thousand One Hundred Ninety-eight and 37/100 Dollars (\$6,198.37) each *to* principal and interest payments in the amount of Four Thousand Fifty-three and 40/100
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Dollars (\$4,053.40) each. Said payments shall be due on the 10th day of each consecutive month beginning May 10th, 2019 and continuing thereafter to Maturity, with one final payment due at Maturity, whether by acceleration or by lapse of time, in an amount equal to the principal balance then outstanding, plus all accrued and unpaid interest. Moreover, all outstanding interest and late fees, together with costs and expenses incurred therefor by Bank shall be paid by Borrower at the time of the execution hereof.

4. Borrower ratifies and confirms that the Note is secured by Borrower's equipment, identified as a reconditioned Double Fold F/F/S Machine, Model V12M, Serial #2205-1234, including all accessions, attachments, accessories, replacements of said collateral, and all records accounts, general intangibles, instruments, rents, monies, payments, proceeds, and all other rights relating thereto.

5. The Borrower hereby represents and warrants to Bank that (a) Borrower has the legal authority to execute and deliver this Amendment; (b) the officers executing this Amendment have been duly authorized to execute and deliver same and bind the Borrower with respect to the provisions hereof; (c) the execution and delivery hereof by the Borrower and the performance and observance by Borrower of the provisions hereof do not violate or conflict with the organizational agreements of the Borrower or any law applicable to Borrower nor would result in a breach of any provisions of or constitute a default under another agreement, instrument or document bearing upon or enforceable against the Borrower; and (d) this Amendment constitutes a valid and binding obligation upon Borrower in every respect.

6. In consideration of this Amendment, Borrower hereby fully releases and discharges the Bank and its shareholders, directors, officers, employees, attorneys, parent, affiliates and subsidiaries from any and all claims, demands, liability, and causes of action whatsoever, now known or unknown, arising out of or in any way related to the extension or administration of the Loan, the Note and all security interests related thereto.

FURTHER, it is hereby understood and agreed that this Note Amendment shall be construed as a revision of the aforementioned Note only, and not a novation; and except as herein provided all the terms and conditions of said Note shall remain in full force and effect according to the original terms, conditions and provisions thereof, as heretofore amended and as subsequently modified or amended by consent and agreement of all the parties, except that the changes set forth herein shall supersede all prior amendments to the Note, if any.

The undersigned Borrower authorizes any attorney-at-law at any time or times after the maturity hereof to appear in any state or federal court of record in the United States of America, to waive the issuance and service of process, to admit the maturity of this note and the nonpayment thereof when due, to confess judgment against the undersigned Borrower in favor of the holder of this note for the amount then appearing due, together with interest and costs of suit, and thereupon to release all errors and to waive all rights of appeal and stay of execution. The foregoing warrant of attorney shall survive any judgment, and if any judgment be vacated for any reason, the holder hereof nevertheless may thereafter use the foregoing warrant of attorney to obtain an additional judgment or judgments against the undersigned Borrower. The undersigned Borrower agrees that the holder's attorney may confess judgment pursuant to the foregoing warrant of attorney. The undersigned Borrower further agrees that the attorney confessing judgment pursuant to the foregoing warrant of attorney may receive a legal fee or other compensation from the holder.

IN WITNESS WHEREOF, Borrower and Bank have caused this instrument to be executed on the 18th day of June 2019.

WARNING - BY SIGNING THIS PAPER YOU GIVE UP YOUR RIGHT TO NOTICE AND COURT TRIAL. IF YOU DO NOT PAY ON TIME A COURT JUDGMENT MAY BE TAKEN AGAINST YOU WITHOUT YOUR PRIOR KNOWLEDGE AND THE POWERS OF A COURT CAN BE USED TO COLLECT FROM YOU REGARDLESS OF ANY CLAIMS YOU MAY HAVE AGAINST THE CREDITOR WHETHER FOR RETURNED GOODS FAULTY GOODS FAILURE ON HIS PART TO COMPLY WITH THE AGREEMENT OR ANY OTHER CAUSE.

BANK :

KEYBANK NATIONAL ASSOCIATION, a national banking corporation

BORROWER:

By: /s/ Charles Button

Charles Button, Assistant Vice President

PEN BRANDS LLC, successor by merger to Nanofilm, Ltd., an Ohio limited liability company

By: /s/ Tom J Berman

Tom J. Berman, Manager, President and Chief Executive Officer

By: /s/ Jeanne M Rickert

Jeanne M. Rickert, Secretary

Subsidiaries of the Registrant

PEN Brands LLC Ohio
Applied Nanotech, Inc. Delaware

Certificate of Principal Executive Officer
Pursuant to Rule 13a-14(a)/15d-14(a)

I, Tom J. Berman, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of PEN Inc. (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant’s other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting) as defined in the Exchange Act Rules 13a - 15(f) and 15d - 15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the registrant’s board of directors:

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 13, 2019

/s/ Tom J. Berman

Tom J. Berman
President

Certificate of Principal Financial Officer
Pursuant to Rule 13a-14(a)/15d-14(a)

I, Jacqueline M. Soptick, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2018 of PEN Inc. (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.

4. The registrant’s other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting) as defined in the Exchange Act Rules 13a - 15(f) and 15d - 15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the registrant’s board of directors:

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: November 13, 2019

/s/ Jacqueline M. Soptick

Jacqueline M. Soptick
Chief Accounting Officer

Section 1350 Certification of Principal Executive Officer

In connection with the annual report of PEN Inc. (the “Company”) on Form 10-K for the year ended December 31, 2018, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Scott Rickert, the President and Chief Executive Officer of the Company, and I, Jacqueline M. Soptick, Chief Accounting Officer, certify to the best of our knowledge:

1. The Report fully complies with the requirements of Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 13, 2019

/s/ Tom J. Berman

Tom J. Berman
President

Date: November 13, 2019

/s/ Jacqueline M. Soptick

Jacqueline M. Soptick
Chief Accounting Officer
