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

FORM 10-K

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

For the fiscal year ended December 31, 2016;

or

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

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:

Title of each class	Name of Each Exchange on Which Registered
Class A Common Stock, $0.0001 par value	OTCQB

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 [X]

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 [X]

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 [X] 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 [X] No [ ]

Indicate by check mark if disclosure of delinquent filers in response to Item 405 of Regulation S-K is not contained in this form and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large Accelerated Filer [ ]	Accelerated Filer [ ]
Non-accelerated Filer [ ]	Smaller Reporting Company [X]

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

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, 2016 of $2.729, was approximately $3.6 million.

As of March 24, 2017, the registrant had 1,409,055 shares of Class A Common Stock (including 37,778 shares that are subject to forfeiture), 1,404,668 shares of Class B Common Stock, and 262,631 shares of Class Z 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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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 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, 2016 and 2015 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.

One line of consumer products center on our customized optical cleaning and de-fogging treatments. Another line of consumer products focuses on creating hygienic surfaces unfriendly to germs. 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. This is expected to be part of a family of cleaning products that protect and fortify surfaces at the nanoscale-level. The patent-pending product is a spray that cleans, penetrates and fortifies the surface. 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.

Our product is made with safe ingredients and does not use harsh chemicals or disinfectants. We start with a natural mineral that is milled and engineered into a smaller shape and size. Then, the milled mineral is mixed with a proprietary cleaner solution to create our product. The mineral chosen is stable in air and water. No governmental approvals are required for sale of this product. The product:

- Rids the surface of dust, dirt and debris;
- Leaves a healthy surface
- Is safe to use
- Continues to work after application;
- Is fast-acting;
- Is non-corrosive;
- Is easy to apply;
- Is non-flammable;
- Is environmentally friendly;
- Is odor free; and
- Is stain free.

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 and work with outside agents and distributors. Our industrial products are sold directly to customers who frequently use our products in their own branded products.

Manufacturing Operations

Our manufacturing is divided between that done at our 50,000-square foot facility in Valley View, Ohio, and third-party contract bottlers and package manufacturers in the United States and India.

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 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, Prosben, 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. Over time, one unrelated third party has become our leading supplier in the United States. As is customary in our industry, historically we have not had long-term or exclusive agreements with third-party suppliers or contract manufacturers and have generally made purchases through purchase orders. 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 account for a substantial portion of our commercial revenue. Revenues from two customers constituted approximately 30% and 14% of 2016 total revenue, and 28% and 11% of 2015 total revenue. Revenue from three customers was approximately 24%, 16% and 10% of 2014 revenue. Many of our customers are significantly larger than we are and, therefore, may be able to exert a high degree of influence over us. The loss of one of the largest customers or the failure to attract new customers could have a material adverse effect on our business, results of operations and financial condition.

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 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. Mercaptan and Methane sensors that we developed for use in the natural gas industry under funding from the Northeast Gas Association are currently being tested for UL certification. We expect that detectors based on this technology will start a field test under the auspices of the Northeast Gas Association starting in 2017.

We are also working on sensors for detection of citrus greening disease with collaboration from the California Citrus Research Board and funding from the U.S. Department of Agriculture (“USDA”).

Hydrogen Sensors. These 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.

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, and our partners are testing our graphene windows for use in their equipment. The extent to which our partners 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 50 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 $807,823 for the year ended December 31, 2016, and $1,187,994 and $504,130 for the years ended December 31, 2015 and 2014, respectively. These reimbursements represent all or a portion of the costs associated with such contracts. As of December 31, 2016, we have several government contracts in process that have approximately $648,143 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 $290,402 for the year ended December 31, 2016, or 8.2% of our total operating costs. Research and development costs were $744,346 for 2015 and $607,049 in 2014. This represented approximately 15% and 13% of our total operating costs in each of those years (prior to an impairment loss). 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, 2016, we had 27 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. 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.

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.

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, manufacturing and laboratory space in Valley View, Ohio is used by our Product segment. 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. On January 26, 2016, we effected a 1-for-180 reverse stock split of our common stock and the prices reported below have been retroactively adjusted to give effect to the reverse stock split.

		High	Low
2015	First Quarter	$ 10.77	$ 7.01
	Second Quarter	$ 10.61	$ 5.58
	Third Quarter	$ 6.08	$ 4.26
	Fourth Quarter	$ 5.22	$ 2.07
2016	First Quarter	$ 5.00	$ 1.71
	Second Quarter	$ 3.20	$ 1.81
	Third Quarter	$ 2.90	$ 1.51
	Fourth Quarter	$ 2.05	$ 1.45

As of March 24, 2017, the closing sale price for our Class A common stock as reported on the OTCQB system was $1.40. As of that date, there were approximately 344 shareholders of record for our Class A common stock, three holders of record of our Class B common stock and one holder of record of our Class Z 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 5,115 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 November 14, 2016, the Company issued an aggregate of 3,636 shares of Class A common stock and 2,424 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 the date of grant of November 14, 2016 at $1.65 per share based on the quoted price of the stock for a total value of $10,000. 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. 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, 2016 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)	20,483	$	41.77	83,827
	Equity Credit Program and Stock Appreciation Rights Plan (3)			-	-
	Warrant	712	$	2.81	-
	Total	58,973			83,827

(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. Any shares with respect to which the Forfeiture Restrictions have not expired by the fifth anniversary of the date of award will be forfeited.

(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) There are 8,250 equity credits outstanding on December 31, 2016 that entitle the holders to receive shares of our Common Stock under certain circumstances, but the number is not determinable. See the description of the Equity Credit Program in Note 13 to the Consolidated Financial Statements. No further Equity Credits are issuable under the Program. The Nanofilm 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, 2016 and for the 2015 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, 2016 and 2015.

Comparison of Results of Operations for the Year Ended December 31, 2016 and 2015

Revenues

For the years ended December 31, 2016 and 2015, revenues consisted of the following:

	Year Ended December 31,	
	2016	2015
Sales:		
Product segment	$ 7,111,947	$ 7,920,148
Contract services segment	$ 1,003,710	$ 1,764,924
Total segment and consolidated sales	**$ 8,115,657**	**$ 9,685,072**

For the year ended December 31, 2016, sales from the Product segment decreased by $808,201 or 10% as compared to the year ended December 31, 2015. 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.

For the year ended December 31, 2016, revenues of our Contract services segment decreased by $761,214 or 43% due primarily to a reduction in government and private service contracts. Fewer government contracts results, in part, from our decision not to apply for contracts that require us to share a portion of the costs.

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, 2016, cost of revenues decreased by $1,034,163 or 16% reflecting the reduced revenues. These consisted of the following:

	Year Ended December 31, 2016	Year Ended December 31, 2015
Cost of revenues:		
Product segment	$ 4,212,079	$ 4,561,506
Contract services segment	$ 1,097,891	1,782,627
Total segment and consolidated cost of revenues	**$ 5,309,970**	**$ 6,344,133**

Gross profit and gross margin

For the year ended December 31, 2016, gross profit amounted to $2,805,687 as compared to $3,340,939 for the year ended December 31, 2015, a decrease of $535,252 or 16%. The decrease was due to reduced revenue at the top line. For the years ended December 31, 2016 and 2015, gross margins were 34.6% and 34.5%, respectively.

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

	Year Ended December 31, 2016	%	2015	%
Gross profit:				
Product segment *	$ 2,899,868	40.8%	$ 3,358,642	42.4%
Contract services segment *	(94,181)	(9.4)	(17,703)	(1.0)
Total gross profit	**$ 2,805,687**	**34.6%**	**$ 3,340,939**	**34.5%**

* Gross margin % based on respective segments sales.

Operating expenses

For the year ended December 31, 2016, operating expenses amounted to $3,552,707 as compared to $5,104,862 for the year ended December 31, 2015, a decrease of $1,552,155 or 30%. For the years ended December 31, 2016 and 2015, operating expenses consisted of the following:

	Year Ended December 31, 2016	Year Ended December 31, 2015
Selling and marketing expenses	$ 220,029	$ 280,173
Salaries, wages and related benefits	1,513,536	2,214,956
Research and development	290,402	744,346
Professional fees	513,237	660,584
General and administrative expenses	1,015,503	1,016,752
Impairment loss	-	188,051
Total	**$ 3,552,707**	**$ 5,104,862**

- For the year ended December 31, 2016, selling and marketing expenses decreased by $60,144 or 21% as compared to the year ended December 31, 2015. The decrease was primarily attributable to reduced commission payments and reduced attendance at trade shows.

- For the year ended December 31, 2016, salaries, wages and related benefits decreased by $701,420, or 32%, as compared to the year ended December 31, 2015, reflecting rightsizing of operations to reflect the reduced revenues.

- For the year ended December 31, 2016, research and development costs decreased by $453,944 or 61%, as compared to the year ended December 31, 2015. The decrease during the period was attributable to the costs incurred in 2015 for development of the new surface cleaner and fortifier product as well as work done in 2015 for the development of gels, foamers and alcohol-free cleaners.

- For the year ended December 31, 2016, professional fees decreased by $147,347 or 22%, as compared to the year ended December 31, 2015. The decrease reflects the costs incurred for tax return preparation in 2015 related to the business combination that closed in 2014 as well as the move of legal work to in-house counsel.

- For the year ended December 31, 2016, general and administrative expenses increased by $1,249 or 0.12% as compared to the year ended December 31, 2015.

- In December 2015, we recorded an impairment charge of $188,051 reducing our intangible assets to zero.

Loss from operations

For the year ended December 31, 2016, loss from operations amounted to $747,020 as compared to a loss from operations of $1,763,923 for the year ended December 31, 2015, a decrease of $1,016,903 or 58%.

Other income (expense)

Other income (expense) includes interest expense and other income, net. For the year ended December 31, 2016, total other income amounted to $191,019 as compared to total other expense of $105,324 for the year ended December 31, 2015, a difference of $296,343 or 281%. The increase in other income in 2016 was primarily attributable to income from subleasing excess space and sales of excess equipment at the Design center in Austin.

Net loss

For the year ended December 31, 2016, net loss amounted to $556,001 as compared to a net loss of $1,869,247 for the year ended December 31, 2015, a decrease of $ 1,313,246 or 70%.

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 $(1,072,691) and $189,128 of cash as of December 31, 2016 and working capital deficit of $(889,657) and $262,519 of cash as of December 31, 2015.

The following table sets forth a summary of changes in our working capital from December 31, 2015 to December 31, 2016:

			December 31, 2015 to December 31, 2016	
	December 31, 2016	December 31, 2015	Change	Percentage Change
Working capital (deficit):				
Total current assets	$ 2,033,026	$ 2,653,190	$ (620,164)	(23.37)%
Total current liabilities	3,105,717	3,542,847	(437,130)	(12.34)%
Working capital (deficit):	**$ (1,072,691)**	**$ (889,657)**	**$ (183,034)**	**(20.57)%**

The decrease in working capital was primarily attributable to reductions in accounts receivable, prepaid expenses and cash.

Net cash provided by operating activities was $444,453 for the year ended December 31, 2016 as compared to net cash used in operating activities of $804,208 for the year ended December 31, 2015, a positive change of $1,248,661.

- Net cash provided by operating activities for the year ended December 31, 2016 primarily reflected a net loss of $556,001, partially offset by the add-back of non-cash items totaling $364,245, and $636,209 provided by changes in operating assets and liabilities.

- Net cash used in operating activities for the year ended December 31, 2015 primarily reflected a net loss of $1,869,247, partially offset by the add-back of non-cash items totaling $630,287, and $434,752 provided by changes in operating assets and liabilities.

Net cash provided by investing activities was $19,586 for the year ended December 31, 2016 as compared to cash used in investing activities of $248,123 for the year ended December 31, 2015. During the year ended December 31, 2016, the proceeds from sales of property and equipment exceeded the cost of equipment purchases while for the year ended December 31, 2015, we purchased property and equipment of $248,123.

Net cash used in financing activities was $537,430 for the year ended December 31, 2016 as compared to net cash provided by financing activities of $850,115 for the year ended December 31, 2015. During the year ended December 31, 2016, we paid down $504,231 more than we received under the line of credit and repaid other debt in the amount of $81,199. During the year ended December 31, 2015, we received net proceeds from the bank line of credit of $515,404 and received net proceeds from notes payable of $334,711.

Future Liquidity and Capital Needs.

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.

Revolving Credit Note

In April 2014, our subsidiary, Nanofilm 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 Nanofilm’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. Nanofilm 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, Nanofilm 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, the Company guaranteed Nanofilm’s obligations to the Lender. On April 4, 2016, the maturity date under the Loan & Security Agreement between Nanofilm 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, Nanofilm shall not a) merge or consolidate with any other company, except for the Combination 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.

At December 31, 2016 and 2015, the Company had $979,688 and $1,288,748, respectively, in borrowings outstanding under the Revolving Note, which includes accrued interest of $17,494 and $14,340, respectively, with availability of up to $537,805 and $211,252, respectively, depending on the borrowing base at the time of the request for the advance. The weighted average interest rate during the years ended December 31, 2016 and 2015 was approximately 8.0% and 7.3%, respectively.

Equipment Financing

On February 10, 2015, Nanofilm entered into a $373,000 promissory note (the "Equipment Note") with KeyBank, N.A. (the "Bank"). 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, 2016 and 2015, the principal amount due under the Equipment Note amounted to $260,331, and $334,711, respectively.

CRITICAL ACCOUNTING POLICIES

Our discussion and analysis of our financial condition and results of operations are based upon our audited consolidated financial statements, that have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We continually evaluate our estimates, including those related to income taxes, and the valuation of equity transactions. We base our estimates on historical experience and on various other assumptions that we believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily available from other sources. Any future changes to these estimates and assumptions could cause a material change to our reported amounts of revenues, expenses, assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of the unaudited consolidated financial statements.

Impairment of long-lived assets

In accordance with ASC Topic 360, we review 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. We recognize 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.

Revenue recognition

Pursuant to the guidance of ASC Topic 605, we recognize 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.

Types of Revenue:

- Net product sales by our subsidiary Nanofilm.

- 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 under 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, thermal management materials and graphene foils.

Revenue Recognition Criteria:

- Net product sales by our subsidiary Nano, are recognized when the product is shipped to the customer and title is transferred.

- Revenue from contract services performed under government contracts is recognized when it is earned pursuant to the terms of the contract. These projects are usually billed monthly based on costs, hours, or some other measure of activity during the month and revenue is recognized as services are provided. If there are substantive acceptance terms then revenue will not be recognized until acceptance occurs. The recognition of revenue may not correspond with the billings allowable under the contract. To the extent that billings exceed revenue earned, a portion of the revenue is deferred until it is earned.

- Revenue from contract services performed under non-governmental contracts is recognized when it is earned pursuant to the terms of the contract. Each contract is unique and tailored to the needs of the customer and goals of the project. Some contracts may call for a monthly payment for a fixed time. Other contracts may be for a fixed dollar amount with an unspecified time, although there is frequently a targeted completion date. These contracts generally involve some sort of up-front payment. Some contracts may call for the delivery of samples, or may call for the transfer of equipment or other items developed during the project to the customer. These projects are usually billed monthly based on costs, hours, or some other measure of activity during the month and revenue is recognized as services are provided. If there are substantive acceptance terms then revenue will not be recognized until acceptance occurs.

- Revenue from other product sales is recognized at the time the product shipped. Our subsidiary Applied Nanotech's primary business is contract services not the sale of products. Product sales are generally insignificant in number.

- Other miscellaneous revenue is recognized as deemed appropriate given the facts of the situation and is generally not material.

Research and development

Research and development costs incurred in the development of our 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 contract services under government and private contracts are included in cost of sales.

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.

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. We initially record compensation expense based on the fair value of the award at the reporting date.

Segment reporting

We use “the management approach” in determining reportable operating segments. The management approach considers the internal organization and reporting used by our chief operating decision maker for making operating decisions and assessing performance as the source for determining our reportable segments. Our chief operating decision maker is the Chairman and chief executive officer (“CEO”) of the Company, who reviews operating results to make decisions about allocating resources and assessing performance for the entire Company. We 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”).

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2 of the Notes to our consolidated financial statements for information related to recent accounting pronouncements.

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
CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2016 and 2015

PEN INC. AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2016 and 2015

CONTENTS

SALBERG & COMPANY, P.A.
Certified Public Accountants and Consultants

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

We have audited the accompanying consolidated balance sheets of PEN Inc. and Subsidiaries as of December 31, 2016 and 2015 and the related consolidated statements of operations, changes in stockholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of PEN Inc. and Subsidiaries as of December 31, 2016 and 2015 and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America.

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 in 2016 of $556,001, and has an accumulated deficit, stockholders' deficit and working capital deficit of $5,900,167, $578,096 and $1,072,691, respectively, at December 31, 2016. These matters raise substantial doubt about the Company's ability to continue as a going concern. Management's plan in regards to these matters is also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Salberg & Company, P.A.

SALBERG& COMPANY, P.A.
Boca Raton, Florida
March 29, 2017

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PEN INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

		December 31,	
		2016	**2015**
ASSETS			
CURRENT ASSETS:			
Cash	$	189,128	$ 262,519
Accounts receivable, net		722,845	1,100,352
Accounts receivable - related party		10,474	11,984
Inventory		1,035,499	1,083,385
Prepaid expenses and other current assets		75,080	194,950
Total Current Assets		2,033,026	2,653,190
OTHER ASSETS:			
Property, plant and equipment, net		709,627	897,358
Other assets		51,078	32,103
Total Other Assets		760,705	929,461
TOTAL ASSETS	$	2,793,731	$ 3,582,651
LIABILITIES AND STOCKHOLDERS' DEFICIT			
CURRENT LIABILITIES:			
Bank revolving line of credit	$	979,688	$ 1,288,748
Current portion of notes payable		90,449	74,380
Accounts payable		1,078,527	1,259,865
Accounts payable - related parties		52,887	27,064
Accrued expenses		904,166	871,098
Deferred revenue		-	21,692
Total Current Liabilities		3,105,717	3,542,847
LONG-TERM LIABILITIES:			
Notes payable, net of current portion		266,110	312,139
Total Long-Term Liabilities		266,110	312,139
TOTAL LIABILITIES		3,371,827	3,854,986
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; 1,367,431 and 1,336,759 issued and outstanding at December 31, 2016 and 2015, respectively		136	134
Class B common stock: $0.0001 par value, 2,500,000 shares authorized; 1,402,104 and 1,395,678 issued and outstanding at December 31, 2016 and 2015, respectively		140	139
Class Z common stock: $0.0001 par value, 300,000 shares authorized; 262,631 and 262,631 shares issued and outstanding at December 31, 2016 and 2015, respectively.		26	26
Additional paid-in capital		5,321,769	5,071,532
Accumulated deficit		(5,900,167)	(5,344,166)
Total Stockholders' Deficit		(578,096)	(272,335)
Total Liabilities and Stockholders' Deficit	$	2,793,731	$ 3,582,651

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Years Ended December 31,	
	2016	**2015**
REVENUES:		
Products (including related party sales of $177,747 and $134,485 for the years ended December 31, 2016 and 2015, respectively)	$ 7,111,947	$ 7,920,148
Contract services	1,003,710	1,764,924
Total Revenues	8,115,657	9,685,072
COST OF REVENUES:		
Products	4,212,079	4,561,506
Contract services	1,097,891	1,782,627
Total Cost of Revenues	5,309,970	6,344,133
GROSS PROFIT	2,805,687	3,340,939
OPERATING EXPENSES:		
Selling and marketing expenses	220,029	280,173
Salaries, wages and related benefits	1,513,536	2,214,956
Research and development	290,402	744,346
Professional fees	513,237	660,584
General and administrative expenses	1,015,503	1,016,752
Impairment loss	-	188,051
Total Operating Expenses	3,552,707	5,104,862
LOSS FROM OPERATIONS	(747,020)	(1,763,923)
OTHER INCOME (EXPENSE):		
Interest expense	(105,090)	(117,879)
Other income, net	296,109	12,555
Total Other Income/(Expense)	191,019	(105,324)
NET LOSS	$ (556,001)	$ (1,869,247)
NET LOSS PER COMMON SHARE:		
Basic	$ (0.18)	$ (0.63)
Diluted	$ (0.18)	$ (0.63)
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:		
Basic	3,012,460	2,974,847
Diluted	3,012,460	2,974,847

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
FOR THE YEARS ENDED DECEMBER 31, 2016 AND 2015

	Class A Common Stock		Class B Common Stock		Class Z Common Stock		Additional Paid-in	Accumulated	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Deficit	(Deficit)
Balance, December 31, 2014	1,304,137	$ 131	1,394,545	$ 139	262,631	$ 26	$4,693,285	$ (3,474,919)	$ 1,218,662
Common stock issued for accrued compensation	11,609	1	-	-	-	-	123,284	-	123,285
Common stock issued from conversion of convertible debt and interest	1,159	-	-	-	-	-	13,725	-	13,725
Common stock issued for services	19,854	2	1,133	-	-	-	75,998	-	76,000
Accretion of Class A shares issuable based on market conditions	-	-	-	-	-	-	165,240	-	165,240
Net loss	-	-	-	-	-	-	-	(1,869,247)	(1,869,247)
Balance, December 31, 2015	1,336,759	134	1,395,678	139	262,631	26	5,071,532	(5,344,166)	(272,335)
Common stock issued for cash, net of issuance costs (1)	17,793	2	-	-	-	-	47,998	-	48,000
Common stock issued for services	10,351	-	6,426	1	-	-	36,999	-	37,000
Accretion of Class A shares issuable based on market conditions	-	-	-	-	-	-	165,240	-	165,240
Rounding shares from reverse stock split	2,528	-	-	-	-	-	-	-	-
Net loss	-	-	-	-	-	-	-	(556,001)	(556,001)
Balance, December 31, 2016	1,367,431	$ 136	1,402,104	$ 140	262,631	$ 26	$5,321,769	$ (5,900,167)	$ (578,096)

(1) Includes cash issuance costs of $2,000.

See accompanying notes to consolidated financial statements.

PEN INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	For the Years Ended December 31, 2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Net loss	$ (556,001)	$ (1,869,247)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Change in inventory obsolescence reserve	56,861	(35,652)
Bad debt expense	12,021	641
Impairment loss	-	188,051
Depreciation and amortization expense	182,986	252,899
Amortization of deferred lease incentives	12,830	(12,830)
Change in value of stock appreciation rights	-	6,962
Change in value of equity credits	-	(11,024)
Gain on sale of property and equipment	(23,586)	-
Loss on disposal of property and equipment	8,745	-
Gain on settlement of accounts payable	(50,879)	-
Gain on settlement of accrued salary	(36,973)	-
Stock-based compensation	202,240	241,240
Change in operating assets and liabilities:		
Accounts receivable	365,486	(67,998)
Accounts receivable - related party	1,510	26,262
Inventory	(8,975)	509,367
Prepaid expenses and other assets	100,895	14,867
Accounts payable	(130,459)	(166,600)
Accounts payable - related parties	25,823	27,064
Accrued expenses	303,621	98,888
Deferred revenue	(21,692)	(7,098)
NET CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES	444,453	(804,208)
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from sales of property and equipment	23,586	-
Purchases of property and equipment	(4,000)	(248,123)
NET CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES	19,586	(248,123)
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from sale of common stock	50,000	-
Payment of issuance costs related to sale of common stock	(2,000)	-
Proceeds from bank line of credit	6,815,000	8,156,000
Repayment of bank lines of credit	(7,319,231)	(7,640,596)
Proceeds from bank loan	-	371,901
Repayment of bank loans	(74,380)	(37,190)
Repayment of loan to third party	(6,819)	-
NET CASH (USED IN) PROVIDED BY FINANCING ACTIVITIES	(537,430)	850,115
NET DECREASE IN CASH	(73,391)	(202,216)
CASH, beginning of year	262,519	464,735
CASH, end of year	$ 189,128	$ 262,519
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash paid during the period for interest		
Interest	$ 105,090	$ 117,879
Income taxes	$ -	$ -
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Common stock issued for convertible notes and accrued interest	$ -	$ 13,725
Common stock issued for accrued expenses	$ -	$ 123,285
Reclassification of accrued salary to notes payable - long-term	$ 51,239	$ 51,808

See accompanying notes to consolidated financial statements.

NOTE 1 – ORGANIZATION AND BASIS OF PRESENTATION

Organization

PEN Inc. (“we”, “us”, “our”, “PEN” or the “Company”), a Delaware company, 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 our wholly-owned subsidiary, 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.

Through our wholly-owned subsidiary, Applied Nanotech, Inc., we primarily perform design and development services for ourselves 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., PEN Technology LLC, and Nanofilm, Ltd. On December 15, 2016, our wholly-owned subsidiary, PEN Technology LLC, was merged into Nanofilm. All significant intercompany accounts and transactions have been eliminated in consolidation.

On January 26, 2016, each one hundred eighty (180) shares of our (i) 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 us or the holder (the “Reverse Stock Split”). Additionally, the authorized number of shares of common stock were reduced to 10,000,000 shares comprised of 7,200,000 shares of Class A Common Stock, 2,500,000 shares of Class B Common Stock, and 300,000 shares of 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.

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 accompanying consolidated financial statements, the Company had a net loss of $556,001 and $1,869,247 for the years ended December 31, 2016 and 2015, respectively. The net cash provided by (used in) operations were $444,453 and $(804,208) for the years ended December 31, 2016 and 2015, respectively. Additionally, the Company had an accumulated deficit, a stockholders’ deficit and a working capital deficit of $5,900,167, $578,096 and $1,072,691, respectively, at December 31, 2016. These factors raise substantial doubt about the Company’s ability to continue as a going concern. Management cannot provide assurance that the Company will ultimately achieve profitable operations or become cash flow positive, or raise additional debt and/or equity capital. During 2016, management has taken measures to reduce operating expenses. Although the Company has historically raised capital from sales of equity and from the issuance of promissory notes, there is no assurance that it will be able to continue to do so. 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 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, 2016 and 2015 include estimates for allowance for doubtful accounts on accounts receivable, the estimates for obsolete inventory, 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 FASB's 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.

	At December 31, 2016			At December 31, 2015		
Description	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
Stock appreciation rights Plan A	-	-	$ 53,108	-	-	$ 53,108
Equity credits issued	-	-	$ 2,278	-	-	$ 14,154

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

	Intangible Assets	Stock Appreciation Rights Plan A	Equity Credits Issued
Balance at December 31, 2014	$ 239,338	$ 46,146	$ 25,178
Amortization of intangible assets	(51,287)	-	-
Change in fair value included in net loss	(188,051)	6,962	(11,024)
Balance at December 31, 2015	-	53,108	14,154
Change in fair value included in net loss	-	-	(11,876)
Balance at December 31, 2016	$ -	$ 53,108	$ 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 and cash equivalents

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.

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 or market. Cost is determined using the first-in, first-out (FIFO) method.

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 income 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.

Revenue recognition

Pursuant to the guidance of ASC Topic 605, the Company recognizes 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.

Types of Revenue:

- Net product sales by our subsidiary Nanofilm.

- 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 and thermal management materials.

Revenue Recognition Criteria:

- Net product sales by our subsidiary Nano, are recognized when the product is shipped to the customer and title is transferred.

- Revenue from contract services performed under government contracts is recognized when it is earned pursuant to the terms of the contract. These projects are usually billed monthly based on costs, hours, or some other measure of activity during the month and revenue is recognized as services are provided. If there is substantive acceptance terms then revenue will not be recognized until acceptance occurs. The recognition of revenue may not correspond with the billings allowable under the contract. To the extent that billings exceed revenue earned, a portion of the revenue is deferred until such time as it is earned.

- Revenue from contract services performed under non-governmental contracts is recognized when it is earned pursuant to the terms of the contract. Each contract is unique and tailored to the needs of the customer and goals of the project. Some contracts may call for a monthly payment for a fixed period of time. Other contracts may be for a fixed dollar amount with an unspecified time period, although there is frequently a targeted completion date. These contracts generally involve some sort of up-front payment. Some contracts may call for the delivery of samples, or may call for the transfer of equipment or other items developed during the project to the customer. These projects are usually billed monthly based on costs, hours, or some other measure of activity during the month and revenue is recognized as services are provided. If there are substantive acceptance terms then revenue will not be recognized until acceptance occurs.

- 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, 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, 2016 and 2015, the Company recorded approximately $139,711 and $156,792, respectively, as a reduction of sales related to these costs.

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 charged to customers are included in sales. For the years ended December 31, 2016 and 2015, shipping and handling costs incurred for product shipped to customers are included in cost of sales and amounted to $184,177 and $179,584, 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 contract services pursuant to government and private contracts are included in cost of sales. For the years ended December 31, 2016 and 2015, research and development costs incurred in the development of the Company's products were $290,402 and $744,346, 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. For the years ended December 31, 2016 and 2015, advertising costs charged to operations were $31,523 and $93,336, respectively and are included in sales and marketing on the accompanying consolidated 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 ASC 740. 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, 2016 and 2015, the Company had no uncertain tax positions that qualify for either recognition or disclosure in the financial statements. 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, 2016 or 2015.

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.

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, 2016 and 2015, 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 (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. Those excluded were the following:

	December 31, 2016	December 31, 2015
Stock options	20,483	12,397
Stock warrants	712	-
Restricted stock	37,778	37,778
Total	58,973	50,175

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:

Net loss per common shares outstanding:	Year ended December 31, 2016	Year ended December 31, 2015
Class A common stock	$ (0.19)	$ (0.63)
Class B common stock	$ (0.18)	$ (0.62)
Class Z common stock	$ (0.18)	$ (0.62)
Weighted average shares outstanding:		
Class A common stock	1,351,432	1,317,306
Class B common stock	1,398,397	1,394,910
Class Z common stock	262,631	262,631
Total weighted average shares outstanding	3,012,460	2,974,847

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 Chairman and chief executive officer ("CEO") 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").

Recent accounting pronouncements

In May 2014, the FASB issued an update ("ASU 2014-09"), Revenue from Contracts with Customers. ASU 2014-09 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most of the existing revenue recognition guidance. ASU 2014-09 requires an entity to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services and also requires certain additional disclosures. ASU 2014-09 is effective for interim and annual reporting periods in fiscal years that begin after December 15, 2016. The Company is currently evaluating the impact of the adoption of ASU 2014-09 on its consolidated financial statements.

In July 2015, the FASB issued 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 accounting standard is effective prospectively for annual periods beginning after December 15, 2016, and interim periods therein. Early adoption is permitted as of the beginning of an interim or annual reporting period. The Company is currently evaluating the impact of adoption of ASU 2015-11 on its consolidated financial statements.

On January 5, 2016, the FASB issued ASU No. 2016-01 to amend the accounting guidance on the classification and measurement of financial instruments. The standard requires that all investments in equity securities, including other ownership interests, are carried at fair value through net income. This requirement does not apply to investments that qualify for equity method accounting or to those that result in consolidation of the investee or for which the entity has elected the predictability exception to fair value measurement. Additionally, the standard requires that the portion of the total fair value change caused by a change in instrument-specific credit risk for financial liabilities for which the fair value option has been elected would be recognized in other comprehensive income. Any accumulated amount remaining in other comprehensive income is reclassified to earnings when the liability is extinguished. This guidance is effective for fiscal years and interim periods beginning after December 15, 2017. The Company does not anticipate the guidance to have a material impact on its consolidated financial statements or notes to its consolidated financial statements.

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.

On March 30, 2016, the FASB issued ASU No. 2016-09 ("ASU 2016-09") to amend the accounting guidance for share-based payment accounting. The areas for simplification in ASU 2016-09 involve several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. ASU 2016-09 is effective for annual periods beginning after December 15, 2016. The Company is currently assessing the impact of the guidance on its consolidated financial statements and notes to its consolidated financial statements.

In April 2016, the FASB issued ASU 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing" ("ASU 2016-10"). The amendments in this update clarify the following two aspects to Topic 606: identifying performance obligations and the licensing implementation guidance, while retaining the related principles for those areas. The entity first identifies the promised goods or services in the contract and reduce the cost and complexity. An entity evaluates whether promised goods and services are distinct. Topic 606 includes implementation guidance on determining whether an entity's promise to grant a license provides a customer with either a right to use the entity's intellectual property (which is satisfied at a point in time) or a right to access the entity's intellectual property (which is satisfied over time). ASU 2016-10 is effective for annual and interim reporting periods beginning after December 15, 2017 and early application is permitted. The Company is currently evaluating ASU 2016-10 and its impact on its consolidated financial statements or disclosures.

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 prior period amounts in the consolidated financial statements have been reclassified for comparative purposes to conform to the fiscal 2016 presentation. These reclassifications have no impact on the previously reported net loss.

NOTE 3 –ACCOUNTS RECEIVABLE

At December 31, 2016 and 2015, accounts receivable consisted of the following:

	December 31, 2016	December 31, 2015
Accounts receivable	$ 743,338	$ 1,108,824
Less: allowance for doubtful accounts	(20,493)	(8,472)
Accounts receivable, net	$ 722,845	$ 1,100,352

Bad debt expense, net of recoveries, was $12,021 and $641 for the years ended December 31, 2016 and 2015, respectively.

NOTE 4 – INVENTORY

At December 31, 2016 and 2015, inventory consisted of the following:

	December 31, 2016	December 31, 2015
Raw materials	$ 927,833	$ 705,952
Finished goods	338,643	551,599
	1,266,528	1,257,551
Less: reserve for obsolescence	(231,027)	(174,166)
Inventory, net	$ 1,035,499	$ 1,083,385

NOTE 5 - PROPERTY AND EQUIPMENT

At December 31, 2016 and 2015, property and equipment consisted of the following:

	Useful Life	December 31, 2016	December 31, 2015
Machinery and equipment	5 - 10 Years	$ 3,892,377	$ 3,943,708
Furniture and office equipment	3 - 7 Years	1,032,132	980,801
Leasehold improvements	7 - 15 Years	287,162	287,162
Construction in progress	-	0	4,744
		5,211,671	5,216,415
Less: accumulated depreciation		(4,502,044)	(4,319,057)
Property and equipment, net		$ 709,627	$ 897,358

For the years ended December 31, 2016 and 2015, depreciation and amortization expense amounted to $182,987 and $201,612, respectively, of which $131,942 and $155,499, respectively, is included in cost of sales and the remainder is included in operating expenses. During the year ended December 31, 2016, we sold excess equipment for proceeds of $23,586. The net book value of the excess equipment was $0, resulting in a gain of $23,586 during the year ended December 31, 2016.

NOTE 6 – REVOLVING CREDIT FACILITY

In April 2014, our subsidiary, Nanofilm 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 Nanofilm'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. Nanofilm 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, Nanofilm 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, the Company guaranteed Nanofilm's obligations to the Lender. On April 4, 2016, the maturity date under the Loan& Security Agreement between Nanofilm 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, Nanofilm shall not a) merge or consolidate with any other company, except for the Combination 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.

At December 31, 2016 and 2015, the Company had $979,688 and $1,288,748, respectively, which includes accrued interest of $17,494 and $14,340, respectively, in amounts outstanding under the Revolving Note with availability of up to $537,806 and $225,592, respectively, depending on the borrowing base at the time of the request for the advance. The weighted average interest rate during the years ended December 31, 2016 and 2015 was approximately 8.0% and 7.3%, respectively.

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, 2016 and 2015, the principal amount due under the Equipment Note amounted to $260,331, and $334,711, respectively.

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, 2016). 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 reflected as 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. The principal balance due on December 31, 2016 was $44,420, with $16,068 reflected as the current portion. Under the restatement certain patent costs that we had accrued for payment will, instead, be an offset against future royalties that may become due to us, so we reversed accruals of $33,713, resulting in a net gain of $33,511 in 2016, which is included within other income, net on the consolidated statement of operations.

Future principal payments of notes payable are as follows:

Years ending December 31:		Amount
2017	$	90,449
2018		102,731
2019		74,380
2020		51,541
2021		-
Thereafter		37,458
	$	356,559

NOTE 8 — RELATED PARTY TRANSACTIONS

Sales to related party

During the years ended December 31, 2016 and 2015, the Company engaged in certain sales transactions with a company which is a shareholder and related to a director of the Company. Sales to the related party totaled $177,747 and $134,485 for the years ended December 31, 2016 and 2015, respectively. Accounts receivable from the related party totaled $10,474 and $11,984 at December 31, 2016 and 2015, respectively.

Other

A board member is a principal in an investment advisory firm which the Company expensed $0 and $115,000 in fees and expenses during the years ended December 31, 2016 and 2015, respectively. That board member is also 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 that firm $55,208 in fees and expenses in 2016 and $0 in 2015. As of December 31, 2016, the Company had a payable of $11,000 to DHJH Holdings LLC.

As of December 31, 2016, the Company included the following within accounts payable to related parties: $22,000 of director fees and $19,887 due to certain of the Company's executives.

NOTE 9 - STOCKHOLDERS' EQUITY

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 180-for-1 (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. Upon the filing and effectiveness of the Amendment which occurred on January 26, 2016 (the "Effective Time"), each one hundred eighty (180) shares of the Company's (i) Class A Common Stock, (iii) Class B Common Stock and (iii) Class Z Common Stock, issued and outstanding immediately prior to the Effective Time ("Old Shares") 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 ("New Shares"), 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 and 300,000 shares of Class Z Common Stock. 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. No such designations have been made.

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. In addition, if Zeiss and other permitted holders of shares of Class Z common stock sell or convert more than one-half of the shares of Class Z common stock that were received in the business combination that closed in August 2014, all shares of Class Z common stock will automatically convert into Class A common stock.

Voting Rights. Holders of 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, 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 convertible debt and interest

On February 7, 2015, the Company issued 1,159 shares of Class A common stock upon the automatic conversion in accordance with its terms of $10,000 of principal amount of convertible promissory notes, and accrued interest of $392. Upon conversion, the Company reclassified $3,333 of the conversion premium to additional paid-in capital.

Common stock issued for services

The Company issued 4,942 shares on January 31, 2015 and 6,667 shares of in February 2015 for an aggregate of 11,609 shares of Class A common stock to the former chief financial officer of Applied Nanotech. These shares were valued on the date of grant at $10.62 per share based on the quoted trading price for a total value of $123,285, which was accrued for in 2014. Upon issuance of these shares in 2015, the accrued expense was relieved and the $123,285 recorded as equity.

On May 4, 2015, the Company issued an aggregate of 665 shares of Class A common stock and 266 shares of Class B common stock to the Company's directors as partial payment for their service on the Company's board. These shares were valued on the date of grant of May 4, 2015 at $7.52 per share based on the quoted price of the stock for a total value of $7,000.

On July 30, 2015, the Company issued an aggregate of 857 shares of Class A common stock and 343 shares of Class B common stock to the Company's directors as partial payment for their service on the Company's board. These shares were valued on the date of grant of July 30, 2015 at $5.83 per share based on the quoted price of the stock for a total value of $7,000.

On November 30, 2015, the Company issued an aggregate of 1,048 shares of Class A common stock and 524 shares of Class B common stock to the Company's directors as partial payment for their service on the Company's board. These shares were valued on the date of grant of November 30, 2015 at $3.82 per share based on the quoted price of the stock for a total value of $6,000.

On December 9, 2015, the Company issued 11,111 shares of Class A common stock to the Company's chief financial officer as partial payment for services rendered. These shares were valued on the date of grant at $3.24 per share based on the quoted price of the stock for a total value of $36,000.

On December 9, 2015, the Company issued 6,173 shares of Class A common stock for legal services rendered. These shares were valued on the date of grant at $3.24 per share based on the quoted price of the stock for a total value of $20,000.

On February 17, 2016, the Company issued 1,248 shares of Class A common stock and 624 shares of Class B common stock to the Company's directors in partial payment for their service on the Company's board. These shares were valued on the date of grant of February 17, 2016 at $3.20 per share based on the quoted price of the stock for a total value of $6,000.

On April 25, 2016, the Company issued an aggregate of 2,800 shares of Class A common stock and 1,600 shares of Class B common stock to the Company's directors as compensation for their service on the Company's board and Board committees. These shares were valued on the date of grant of April 25, 2016 at $2.50 per share based on the quoted price of the stock for a total value of $11,000.

On July 25, 2016, the Company issued an aggregate of 2,667 shares of our Class A common stock and 1,778 shares of our Class B common stock as compensation to our directors for service on our board. These shares were valued on the date of grant of July 25, 2015 at $2.25 per share based on the closing price of our stock for a total value of $10,000.

On November 14, 2016, the Company issued an aggregate of 3,636 shares of Class A common stock and 2,424 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 the date of grant of November 14, 2016 at $1.65 per share based on the quoted price of the stock for a total value of $10,000.

<u>Sales of Common Stock</u>

On July 25, 2016, the Company issued 17,793 shares of Class A common stock at a price of $2.81 per share to a private investor for a total cash purchase of $50,000 that was received in May, 2016 and reflected as a deposit on stock purchase liability at June 30, 2016. On July 25, 2016, we also issued a 5-year warrant to purchase up to 712 shares of Class A common stock at an exercise price of $2.81 per share to the investment banking firm that assisted us in placing the shares with that investor for a value of $1,546, assuming a 1.15% risk free rate and 191.8% annual volatility. The Company also paid that firm a cash fee of $2,000. Both the warrant value and cash fee were charged against the proceeds to additional paid in capital.

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. The options vest and become exercisable after the Company has recorded revenue of at least $1,000,000 for its HALO brand products that reflect the rebranding designed with the assistance of the consultants. Pursuant to ASC 505, the fair value of the options is measured once the performance condition is achieved, at which time the Company will recognize expense associated with the options.

Stock options outstanding are to purchase Class A common stock, Stock option activities for the years ended December 31, 2016 and 2015 are summarized as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Balance Outstanding, December 31, 2014	24,289	$ 90.00		
Exercised	-	-		
Forfeited	(11,892)	(97.87)		
Granted	-	-		
Balance Outstanding, December 31, 2015	12,397	$ 81.15		
Exercised	-			
Forfeited	(1,914)	93.31		
Granted	10,000	2.81		
Balance Outstanding, December 31, 2016	20,483	$ 41.77	3.99	$ -
Exercisable, December 31, 2016	10,483	$ 78.93	3.43	-

Contingently issuable Class A common shares

On August 27, 2014, the Company entered a Restricted Stock Agreement with Dr. Zvi Yaniv, the former Chief Operating Officer and President, of Applied Nanotech, and a retired 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 us, Dr. Yaniv's death, or if more than 180 days after closing of the August 27, 2014 reverse merger, 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. We also entered 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 we are registering our 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 shares 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 each of the two years ended December 31, 2016 and 2015, to amortize the fair value of this stock grant, the Company recorded stock-based compensation of $165,240.

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, 2016, 17,284 Class A common shares and options to purchase up to 10,000 Class A common shares have been issued under the Plan and 83,827 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, 2016 and 2015 were as follows:

	Years Ended December 31,	
	2016	2015
Income tax benefit at U.S. statutory rate of 34%	$ (189,000)	$ (628,000)
Forfeiture of stock options	21,000	215,000
Non-deductible expenses	80,000	54,000
Change in valuation allowance	88,000	359,000
Total provision for income tax	$ -	$ -

The Company's approximate net deferred tax assets as of December 31, 2016 and 2015 were as follows:

	December 31, 2016	December 31, 2015
Deferred Tax Assets:		
Net operating loss carryforward	$ 3,002,000	$ 2,917,000
Stock-based compensation	156,000	177,000
Allowance for inventory obsolescence	79,000	60,000
Accrued compensation	106,000	101,000
Other	61,000	61,000
Total deferred tax assets	3,404,000	3,316,000
Valuation allowance	(3,404,000)	(3,316,000)
Net deferred tax assets	$ -	$ -

The estimated net operating loss carryforward was approximately $8,829,000 at December 31, 2016, 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, 2016 because it was not known whether future taxable income will be sufficient to utilize the loss carryforward. The increases in the valuation allowance was $88,000 from the prior year ended December 31, 2015. The potential tax benefit arising from tax loss carryforwards will expire between 2018 and 2036.

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 2013, 2014, 2015 and 2016 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. The Company has the right to renew certain facility leases for an additional five years. Rent expense for operating leases was $634,853 and $514,739 for the years ended December 31, 2016 and 2015, respectively, including $12,830 of amortization for deferred lease incentives for the years ended December 31, 2016 and 2015.

Future minimum lease payments under non-cancelable operating leases at December 31, 2016 are as follows:

Years ending December 31,		Amount
2017	$	514,073
2018		230,387
2019		49,162
2020		5,136
2021		5,136
2022		5,136
Total minimum non-cancelable operating lease payments	$	809,030

Equity Credits

Equity credits may become convertible into an unknown amount of capital stock of the Company to be determined by the Company's board of directors (See Note 13).

Stock Appreciation Rights

If the Company completes an IPO, the value of stock appreciation rights calculated based on the IPO formula may cause a material increase in the value of the liability (See Note 14).

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, 2016 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 on one lender under a $1,500,000 Revolving Note.

Geographic concentrations of sales

For the years ended December 31, 2016 and 2015, total sales in the United States represent approximately 90% and 91% of total consolidated revenues, respectively. No other geographical area accounted for more than 10% of total sales during the years ended December 31, 2016 and 2015.

Customer concentrations

Customer concentrations for the years ended December 31, 2016 and 2015 are as follows:

	Revenues		Accounts Receivable	
	Years Ended December 31,		As of December 31,	
	2016	2015	2016	2015
Customer A	30%	28%	14%	31%
Customer B	14	*%	16	*
Customer C	*%	11%	15%	14%
Total	44%	39%	45%	45%

* 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.

Vendor concentrations

Vendor concentrations for inventory purchases for the years ended December 31, 2016 and December 31, 2105 are:

	For the Years Ended December 31,	
	2016	2015
Vendor A	30%	32%
Vendor B	12%	12%
Vendor C	*	11
Total	**42%**	**55%**

NOTE 13 – EQUITY CREDITS

In 1997, Nanofilm 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 Nanofilm'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 Nanofilm equity on a one-for-one basis. During the year ended December 31, 2015, no equity credits were forfeited and no units were redeemed. During the year ended December 31, 2016, no equity credits were forfeited and 38,500 units were redeemed for a cash payment made to the employees of $11,876. As of December 31, 2016, 8,250 equity credits were issued and outstanding with an aggregate redemption value of $2,278. At December 31, 2016 and 2015, $2,278 and $14,154, respectively, was accrued, and included in accrued expenses, representing the redemption value associated with the equity credits outstanding for both years.

Under the terms of the Plan, when the Company completes a registered offering of its common stock, the equity credit participants will have the option to convert the equity credits into Class A common shares of the Company, or in the case of our President, into shares of Class B common stock.

For the years ended December 31, 2016 and 2015, a gain (loss) from the change in value of the equity credits was $0 and $11,024, respectively, and is included in operating expenses on the accompanying consolidated statements of operations.

NOTE 14 – STOCK APPRECIATION PLAN

From June 1, 1988, until December 31, 1997, when the plan was terminated, Nanofilm 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 Nanofilm. 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, 2016 and 2015. The SARS unit value is based on the book value of the Company as of the last fiscal year end multiplied by a SARS multiplier stipulated in the SARS plan. However, in the event of an initial public offering ("IPO") of Nano, the SARS are redeemable based on a value equal to offering price of the stock in an IPO times the total outstanding shares of the Company just subsequent to the completion of the IPO, multiplied by the SARS multiplier. The SARS multiplier is to be adjusted, as the Board determines, to reflect changes in the capitalization of Nanofilm. Generally, the SARS are redeemable in cash, at their then fair value as computed pursuant to the Plan, in the event of termination of employment or business relationship, death, permanent and total disability, or sale of Nanofilm (as defined). Upon an IPO, SARS are to be redeemed by applying 70% of the redemption value to purchase common shares, with the remaining 30% being distributed in cash to the participant.

The August 2014 reverse merger does not qualify as an IPO under the Plan, however, a future underwritten registered offering may qualify.

The accrued redemption value associated with the stock appreciation rights amounted to $53,107and $53,108, at December 31, 2016 and 2015, respectively. If the Company completes an IPO, the value of SARS calculated based on the IPO formula may cause a material increase in the value of the liability.

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, 2016 and 2015 were i) 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 Chairman and CEO, 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, 2016 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 income (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 expense. 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, 2016 and 2015 was as follows:

	Years Ended December 31, 2016	Years Ended December 31, 2015
Revenues:		
Product segment	$ 7,111,947	$ 7,920,148
Contract services segment	1,003,710	1,764,924
Total segment and consolidated revenues	$ 8,115,657	$ 9,685,072
Gross profit (loss):		
Product segment	$ 2,899,868	$ 3,358,305
Contract services segment	(94,181)	(17,366)
Total segment and consolidated gross profit	$ 2,805,687	$ 3,340,939
Income (loss) from operations		
Product segment	$ 605,783	$ 487,973
Contract services segment	(334,916)	(696,369)
Total segment income (loss)	270,867	(208,396)
Unallocated costs	1,017,888	(1,531,807)
Total consolidated loss from operations	$ (747,020)	$ (1,740,203)
Depreciation and amortization:		
Product segment	$ 143,622	$ 150,056
Contract services segment	39,365	51,556
Total segment depreciation and amortization	182,987	201,612
Unallocated depreciation	-	51,287
Total consolidated depreciation and amortization	$ 182,987	$ 252,899
Capital additions:		
Product segment	$ 4,000	$ 244,737
Contract services segment	-	3,386
Total segment capital additions	$ 4,000	$ 248,123
Unallocated capital additions	-	-
Total consolidated capital additions	$ 4,000	$ 248,123

	December 31, 2016	**December 31, 2015**
Segment total assets:		
Product segment	$ 2,577,034	$ 3,119,551
Contract services segment	146,193	353,583
Corporate	70,504	109,517
Total consolidated total assets	$ 2,793,731	$ 3,582,651

The Company does not allocate any general and administrative expenses, other income to its reportable segments because these activities are managed at a corporate level.

NOTE 16 – SUBSEQUENT EVENTS

In January 2017, we 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.

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.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act that are designed to ensure that information required to be disclosed in our reports filed or submitted to the SEC under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the SEC's rules and forms, and that information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. Our Chief Executive Officer and Chief Financial Officer evaluated the effectiveness of disclosure controls and procedures as of December 31, 2016 pursuant to Rule 13a-15(b) under the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, the Company's disclosure controls and procedures were effective to ensure that information required to be included in our periodic SEC filings is recorded, processed, summarized, and reported within the time periods specified in the SEC rules and forms.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for the preparation of our consolidated financial statements and related information. Management uses its best judgment to ensure that the consolidated financial statements present fairly, in material respects, our financial position and results of operations in conformity with generally accepted accounting principles. Management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in the Securities Exchange Act of 1934. These internal controls are designed to provide reasonable assurance that the reported financial information is presented fairly, that disclosures are adequate and that the judgments inherent in the preparation of financial statements are reasonable. There are inherent limitations in the effectiveness of any system of internal controls including the possibility of human error and overriding of controls. Consequently, an ineffective internal control system can only provide reasonable, not absolute, assurance with respect to reporting financial information.

Our internal control over financial reporting includes policies and procedures that: (i) pertain to maintaining records that, in reasonable detail, accurately and fairly reflect our transactions; (ii) provide reasonable assurance that transactions are recorded as necessary for preparation of our financial statements in accordance with generally accepted accounting principles and that the receipts and expenditures of company assets are made in accordance with our management and directors authorization; and (iii) provide reasonable assurance regarding the prevention of or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on our financial statements.

Under the supervision of management, including our Chief Executive Officer and our Chief Accounting Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission published in 2013 and subsequent guidance prepared by the Commission specifically for smaller public companies. Based on that evaluation, our management concluded that our internal controls over financial reporting were effective as of December 31, 2016.

Our management, including our Chief Executive Officer and Chief Accounting Officer, does not expect that our disclosure controls and procedures or our internal controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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.

Name	Age	Position(s)	Serving Since
Ronald J. Berman	60	Director	May 1996
Douglas Q. Holmes	60	Director	August 2014
Jeanne M. Rickert	63	Director and Chief Legal Officer	August 2014
Scott E. Rickert	63	Chairman of the Board and Chief Executive Officer	August 2014
James Sharp	60	Director	August 2014
Jaqueline M Soptick	50	Chief Accounting Officer	February 2017
Howard Westerman	64	Director	May 2007

Except for the one director designated by the holders of Class Z common stock (currently Mr. Sharp), 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. The director designated by the Class Z common stock holders may only be removed (with or without cause) by the Class Z common stock holders. Our officers are appointed by our board of directors and hold office until removed by the board. 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.

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.

Douglas Q. Holmes is an investment banker and member of Holmes Hollister & Co. and a principal in DHJH Holdings LLC. Mr. Holmes has been an investment banker since 1978. He has been an investment banker in New York and Chicago for Lazard Freres & Co., The First Boston Corporation and Kidder, Peabody & Co. before starting two private investment banks, Carleton McCreary Holmes& Co., which was merged with Key Corp., and subsequently, Holmes Hollister & Co. Mr. Holmes has been 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, Chief Executive Officer and President since August 2014. He 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.

James Sharp is President and CEO of Zeiss and he is also President of Carl Zeiss Microscopy. Mr. Sharp began his career 40 years ago as a Zeiss service technician with an undergraduate degree in electrical engineering. Mr. Sharp has served Zeiss in North America as well as in Germany, supervising operations in both light and electron microscopy. Over the years he has held a number of regional and national managerial positions, becoming President of the Microscope Division in 1991. After spending four years at Carl Zeiss Jena GmbH in Germany as Senior Vice President and General Manager of the Microscopy Business Unit, Mr. Sharp returned to the U.S. as head of Carl Zeiss MicroImaging. Prior to the Combination he was a board member of Nanofilm, and he is a trustee of the Marine Biological Laboratories. He also serves on the board of several Carl Zeiss companies.

With his prior experience in the management and operation of Carl Zeiss Microscopy in North America, Mr. Sharp provides our board with management and operational expertise as well as the benefit of his significant knowledge of the operation of a technology company.

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 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, 2016 and Forms 5 and amendments thereto furnished to us with respect to the fiscal year ended December 31, 2016, 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, 2016 with the exception of Mr. Berman who was late in filing with respect to some shares purchased on December 24, 2015 that were reported in a filing on January 22, 2016, and Mr. Berman was late in filing with respect to purchases made on August 10 (filed August 15), purchases on September 27 and 29 (filed October 5), purchases on October 11 (filed October 14), purchases on October 18 (filed October 21), purchases on November 21, 22 and 23 (filed on November 30), and purchases on December 13 (filed December 19), and a purchase on December 28 (filed January 3, 2017).

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. Berman 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, the current levels of compensation to corporate officers and the voting control exercised by Mr. Rickert due to his control over the Class B common stock. 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 and CEO. Except for the one director designated by the holders of Class Z common stock, 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 ommittee. 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, 2016, 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, 2016 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, 2016; (ii) our two most highly compensated executive officers other than our principal executive officer who were serving as executive officers at December 31, 2016 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, 2016. Compensation information is shown for the fiscal years ended December 31, 2016 and, if the individual was employed with us in 2015, for 2015.

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 2016 and fiscal 2015. The value of stock awards represents the grant date fair value of awards granted with respect to fiscal 2016 and fiscal 2015 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, 2016.

For stock awards, these shares were valued on the measurement 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 2016 or 2015.

Name & Principal Position	Year	Salary	Stock Awards(1)	All Other Compensation	Total
Scott E. Rickert, Chief Executive (2)	2016	$ 153,750(3)	$ 8,000(3)	$ -(3)	$ 161,750
	2015	$ 141,900	$ 3,000	$ -	$ 144,900
Jeanne M. Rickert, Secretary and General Counsel (4)	2016	$ 150,000	$ 8,000	$ -	$ 158,000
	2015	$ 120,370	$ 3,000	$ -	$ 123,370

(1) All directors are compensated for service on our Board. The compensation in this column all relates to Board service. In addition to the stock awards, there are accrued unpaid director fees for meetings attended in 2015 aggregating $3,000 to each of the Rickerts.

(2) Scott Rickert has served as our Chairman of the Board of Directors and Chief Executive Officer since August 22, 2014. Before that, he served as CEO of Nanofilm and NanoHolding.

(3) This column reflects salary earned for the year. Of this, $23,654 was paid in cash and the balance remains accrued and unpaid.

(4) Jeanne Rickert has served as our Secretary and General Counsel since August 27, 2014. Previously, she served in those roles for Nanofilm and NanoHolding.

Neither Scott or Jeanne Rickert has an employment agreement.

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, 2016:

	Option Awards					Stock Awards			
Name	Number of Securities Underlying Unexercised options - exercisable	Number of Securities Underlying Unexercised Options - unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned 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 (1)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights hat have not Vested (2)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or other Rights that have not Vested (1)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Scott E Rickert								(1)	$ (1)
Jeanne M. Rickert									

(1) Mr. Rickert holds 8,250 equity credits under the Nanofilm Equity Credit Program. Those equity credits can convert into PEN common stock but the number of shares is not determinable at this time. See Note 13 to our Consolidated Financial Statements.

Director Compensation

We paid our directors the amounts shown below during the fiscal year ended December 31, 2016. Amounts paid to Scott 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-	(2)	$ 8,000
James Sharp (3)	$ 0	$ 2,000	-0-	-0-	$ 2,000
Howard Westerman	$ 1,000	$ 9,000	-0-	-0-	$ 10,000

(1) No option awards were made to Directors or executive officers in 2016 or 2015. Mr. Berman holds options for 1,744 shares and Mr. Westerman holds options for 1,059 shares from prior period grants.

(2) Mr. Holmes is a principal of DHJH Holdings LLC and of Holmes Hollister & Co. We incurred an aggregate of $ 55,208 in fees and expenses in 2016 to DHJH Holdings LLC and we paid Holmes Hollister & Co. aggregate fees and expenses of $115,000 in 2015.

(3) Mr. Sharp is the Zeiss designee to our Board. His fees are paid to Carl Zeiss, Inc.

All directors are compensated for 2016 with a fee of $2,000 per meeting. The fee is payable in shares of our Class A common stock, except that the Rickerts receive shares of Class B common stock instead of Class A shares. Mr. Westerman's service on the Audit Committee was compensated based on the 2015 compensation for directors which was a fee of $2,000 per meeting, payable half in cash and half in 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 March 7, 2017 with respect to (1) each person who is known to us to be the beneficial owner of more than five percent of our Class A common stock, (2) each person who is known to us to be the beneficial owner of more than five percent of our Class B common stock, (3) each person who is known to us to be the beneficial owner of more than five percent of our Class Z common stock.

Title of Class	Name and address of beneficial owner	Amount and nature of beneficial ownership	Percent of Class
Class A common stock	Ronald J. Berman PEN Inc. 701 Brickell Ave., Suite 1550 Miami, FL 33131	96,595	7%
Class B common stock	Scott E. Rickert PEN Inc. 701 Brickell Ave., Suite 1550 Miami, FL 33131	1,398,045(1)	100%
Class Z common stock	Carl Zeiss, Inc. One Zeiss Drive Thornwood, NY 10594	262,631	100%

(1) As the sole general partner of Rickert Family, Limited partnership, Mr. Rickert has voting and investment power over the 1,392,768 shares held by the partnership. Mr. Rickert disclaims beneficial ownership of 928,512 shares for which he does not have a pecuniary interest.

Set forth in the table below is information as of March 6, 2017 with respect to the beneficial ownership of Class A, Class B and Class Z common stock by our directors, and Named Executive Officers.

Name of Beneficial Owner	Title of Class of common stock	Amount and Nature of Beneficial Ownership (1)	Percent of Class absent conversion of Class B and Class Z common stock(2)	Percent of Class A assuming conversion of all Class B & Class Z common stock
Ronald J Berman	Class A	96,595	7%	3%
Douglas Q. Holmes	Class A	5,277	(6)	(6)
Jeanne M. Rickert (3)	Class B	470,206	33%	15%
Scott E. Rickert (4)	Class B	1,398,718	100%	46%
James Sharp (5)	Class Z	262,631	100%	
	Class A	831	(6)	9%
Jacqueline M. Soptick	Class A	2,436	(6)	(6)
Howard Westerman	Class A	29,743	2%	1%
All directors and officers as a group	Class A	134,882	10%	59%
	Class B	1,404,668	100%	
	Class Z	262,631	100%	

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

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

(2) Percentages based on 1,409,055 shares of Class A Common Stock, 1,404,668 shares of Class B Common Stock, and 262,631 shares of Class Z Common Stock issued and outstanding.

(3) Shares reported include 5,950 owned directly, and 464,256 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 5,950 owned directly, and 1,392,768 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 928,512 shares held by Rickert Family, Limited Partnership for which he does not have a pecuniary interest.

(5) All the shares of both Class A common stock and Class Z common stock are owned by Carl Zeiss, Inc., of which Mr. Sharp is a Director and serves as President and Chief Executive Officer. Mr. Sharp disclaims beneficial ownership of any shares owned by Carl Zeiss, Inc.

(6) Ownership represents less than 1%.

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

Our director, Mr. Holmes is a principal of DHJH Holdings LLC and of Holmes Hollister & Co. We incurred an aggregate of $ 55,208 in fees and expenses in 2016 to DHJH Holdings LLC and we paid Holmes Hollister & Co. aggregate fees and expenses of $115,000 in 2015.

Mr. Sharp, one of our directors, is the President and Chief Executive Officer of Carl Zeiss, Inc., and Carl Zeiss, Inc. owns greater than 5% of our Class Z common stock. During the year ended December 31, 2016 and 2015, we sold products to a related company. Sales to the related party totaled $177,747 and $134,485 for the years ended December 31, 2016 and 2015, respectively. Accounts receivable from the related party totaled $10,474 and $11,984 at December 31, 2016 and 2015, respectively.

Our board has determined that Messrs. Berman 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, Salberg & Co., P.A., for each of our last two fiscal years for the categories of services indicated.

	Years Ended December 31,	
Category	2016	2015
Audit Fees	$ 79,000	$ 78,000
Audit Related Fees	$ 0	$ 500
Tax Fees	$ 0	$ 0
All Other Fees	$ 0	$ 0

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).
10.1	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).
10.2	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).
10.3	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).
10.4	Revolving Credit and Loan Rider (to Loan and Security Agreement effective as of April 4, 2014) between Mackinac Commercial Credit, LLC and Nanofilm, Ltd. (incorporated herein by reference to the Company's Form 10Q filed with the Commission on November 14, 2014).
10.5	Revolving Credit Note dated April 4, 2014 to Mackinac Commercial Credit, LLC from Nanofilm, Ltd. (incorporated herein by reference to the Company's Form 10Q filed with the Commission on November 14, 2014).
10.6	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).
10.7*	First Amendment to Loan and Security Agreement, effective as of April 4, 2015 between Nanofilm, Ltd. And Mackinac Commercial Credit, LLC.
10.8	Promissory Note, dated February 10, 2015, between Nanofilm, Ltd. and KeyBank National Association (incorporated herein by reference to Exhibit 10.12 of the Company's form 10-K filed with the Commission on April 10, 2015).
10.9	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).
10.10	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 Chief Executive Officer
31.2*	Rule 13a-14(a)/15d-14(a) Certificate of Chief Financial Officer
32.1*	Section 1350 Certificate of Chief 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: March 29, 2017

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.

Signature	Title	Date
/s/ Scott R. Rickert Scott E Rickert	Chairman & Chief Executive Officer (principal executive officer)	March 29, 2017
/s/ Jacqueline M. Soptick Jacqueline M. Soptick	Chief Accounting Officer (principal financial and accounting officer)	March 29, 2017
/s/ Ronald J. Berman Ronald J. Berman	Director	March 29, 2017
/s/ Douglas Q. Holmes Douglas Q. Holmes	Director	March 29, 2017
/s/ Jeanne Rickert Jeanne M. Rickert	Director	March 29, 2017
/s/ Scott E. Rickert Scott E. Rickert	Director	March 29, 2017
James Sharp	Director	
/s/ Howard Westerman Howard Westerman	Director	March 29, 2017

FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT ("Amendment") is entered into as of May 1, 2015, but effective as of April 4, 2015 ("Effective Date"), between **NANOFILM, LTD.,** an Ohio limited liability company ("Borrower") and **MACKINAC COMMERCIAL CREDIT, LLC**, a Michigan limited liability company (together with its successors and assigns, the "Lender").

RECITALS

A. Lender and Borrower entered into a Loan and Security Agreement dated April 4, 2014 (as amended, the "Loan Agreement"). All capitalized terms not defined herein shall have the same meanings ascribed to such terms in the Loan Agreement.

B. Lender and Borrower have agreed to modify the terms and conditions of the Loan Agreement and Borrower and Lender wish to set forth their agreement regarding the foregoing in this Amendment.

NOW, THEREFORE, in consideration of the mutual covenants, conditions, and provisions as hereinafter set forth, the parties hereto agree as follows:

1. Maturity Date. The definition of "Maturity Date" as set forth in Paragraph 2(e) of the Term Sheet to the Loan Agreement and the Revolving Credit Loan Note is hereby amended to the earlier of demand or **April 4, 2016.**

2. Equipment Borrowing Base. Section 2.A of the Revolving Credit Loan Rider #1 is hereby amended and restated in its entirety to read as follows:

> **Advances**. Subject to the terms of the Agreement, Lender may, in its sole discretion and upon Borrower's request, make Advances to Borrower in an amount (hereinafter referred to as the "Gross Availability") which is the lesser of (i) the **Maximum Loan Amount** as set forth on the Term Sheet or (ii) an amount equal to the sum of (x) the applicable **Percentage Advance Rate** as set forth on the Term Sheet times the face amount (less maximum discounts, credits and allowances which may be taken by or granted to Receivable Debtors in connection therewith) of Eligible Receivables; plus (y) the lesser of (1) the Inventory Cap as set forth on the Term Sheet, or (2) the sum of (A) the applicable Percentage Advance Rate as set forth on the Term Sheet times the value of Borrower's Eligible Raw Materials (less freight and container costs) calculated at the lower of cost or market value, plus (B) the applicable Percentage Advance Rate as set forth on the Term Sheet times the value of Borrower's Eligible Finished Goods (less freight and container costs) calculated at the lower of cost or market value; plus (z) the Borrowing Base; which Advances Borrower may borrow, repay and reborrow during the term of the Agreement. All Advances and amounts payable pursuant to this Rider shall constitute part of the Obligations.
>
> For purposes of this Section 2.A, the term "Borrowing Base" means $450,000 for the period commencing May 1, 2015 and ending November 1, 2015, reducing by $7,500 as of December 1, 2015, and on the same date of each calendar month thereafter.

3. Corporate Guaranty. Simultaneously with this Amendment, the Borrower shall cause PEN Inc., a Delaware corporation, to execute and deliver a Corporate Guaranty to Lender constituting its unconditional, unlimited guaranty of the Obligations, in form and substance satisfactory to the Lender (the "Corporate Guaranty"). In connection therewith, the following amendments shall be made to the Loan Agreement:

(a) The definition of "Guarantor" in Section 1(o) of the Loan Agreement shall be amended and restated to read as follows:

"Guarantor" means the Individual Guarantor and the Corporate Guarantor.

(b) The following definitions shall be added to Section 1 of the Loan Agreement in appropriate alphabetical sequence:

"Corporate Guarantor" means PEN.

"Individual Guarantor" means Scott E. Rickert, an individual.

(c) Sections 8(a)(vi)b. and 8(a)(viii) shall each be amended to replace the term "Guarantor" with "Individual Guarantor".

4. Conditions to Effectiveness. The effectiveness of this Amendment shall be subject to satisfaction of the following conditions:

(a) Amendment Documents. Borrower shall have executed and delivered, or cause to be executed and delivered to Lender, this Amendment (including the acknowledgement and agreement to the amendments contained herein of the Individual Guarantor), the Corporate Guaranty, and all other documents and instruments required by Lender in connection with this Amendment.

(b) Lender Expenses. Borrower shall have paid to Lender all of Lender's legal fees and expenses incurred in connection with the preparation, negotiation and closing of this Amendment.

5. Effect of Amendment. Effect of Amendment. Except for the amendments set forth in this Amendment, the Loan Agreement and all other Loan Documents shall remain unchanged and in full force and effect. Nothing in this Amendment is intended, or shall be construed, to constitute a novation or an accord and satisfaction of any of Borrower's obligations under or in connection with the Loan Agreement or any other Loan Document.

6. Miscellaneous.

(a) Entire Agreement. This Amendment, together with the Loan Agreement and other Loan Documents constitutes the entire agreement and understanding among the parties relating to the subject matter hereof, and supersedes all prior proposals, negotiations, agreements and understandings relating to such subject matter. In entering into this Amendment, Borrower acknowledges that it is relying on no statement, representation, warranty, covenant or agreement of any kind made by the Lender or any employee or agent of Lender, except for the agreements of Lender set forth herein.

(b) Binding Effect. This Amendment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns, provided that no party other than Lender may assign any of its rights or obligations hereunder without the prior written consent of Lender.

(c) Governing Law. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF MICHIGAN APPLICABLE TO CONTRACTS MADE AND PERFORMED IN SUCH STATE.

(d) Counterparts; Facsimile or Electronic Signatures. This Amendment may be executed in multiple counterparts, each of which shall be deemed to be an original and all of which when taken together shall constitute one and the same instrument. A facsimile or PDF signature shall be effective as an original signature.

[Signatures on following page]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed and delivered as of the date first hereinabove set forth.

BORROWER:

NANOFILM, LTD.,
an Ohio limited liability company

By: */s/ Krish Rao*
Krish Rao
Title: President

LENDER:

MACKINAC COMMERCIAL CREDIT, LLC,
a Michigan limited liability company

By: */s/ Edward P. Lewan*
Edward P. Lewan
Title: President

ACKNOWLEDGEMENT OF GUARANTOR

Scott E. Rickert, guarantor under that certain Validity Guaranty dated April 4, 2014 in favor of Lender (the "Validity Guaranty"), acknowledges the above Amendment and agrees that his Validity Guaranty shall continue in full force and effect.

GUARANTOR:

/s/ ScottE.Rickert
Scott E. Rickert, an individual

Exhibit 21.1

Subsidiaries of the Registrant

Nanofilm, Ltd. Ohio
Applied Nanotech, Inc. Delaware

Exhibit 31.1

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

I, Scott Rickert, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2016 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: March 29, 2017

/s/ Scott Rickert
Scott Rickert
President and Chief Executive Officer

Exhibit 31.2

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, 2016 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: March 29, 2017

/s/ Jacqueline M. Soptick
Jacqueline M. Soptick
Chief Accounting Officer

Exhibit 32.1

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, 2016, 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: March 29, 2017	*/s/ Scott Rickert*
	Scott Rickert
	President and Chief Executive Officer
Date: March 29, 2017	*/s/ Jacqueline M. Soptick*
	Jacqueline M. Soptick
	Chief Accounting Officer