



COMPANY OVERVIEW

N-Viro International Corporation, founded in 1993, is an alternative energy manufacturing company headquartered in Toledo, Ohio, USA. We specialize in resource conversion technology to treat and recycle bioorganic materials with certain alkaline and mineral by-products produced by the cement, lime, and electrical generation industries.

The Company was formed to capitalize on the implementation of the Clean Water Act, which required Publicly Owned Treatment Works (“POTWs”) to improve the processing of wastewater residuals. Research and development efforts in the 1990’s confirmed the effectiveness of other types of available bioorganic materials such as livestock manure, food waste, and pulp and paper waste in the N-Viro process.

COMPANY HISTORY

The Company went public in late 1993 with the stock symbol (NVIC). The original founder held the highest ownership percentage. During the next ten years the Company licensed the base technology to public wastewater treatment facilities with a small market share. The original N-Viro process was enhanced in the 1990’s with the addition of an advanced mechanical drying process. In early 2000, the Research and Development team developed and patented an alternative energy product know as N-Viro Fuel™. In 2006 new leadership and a new business model changed the direction of the Company from passive licensing to direct ownership. The strategy was to promote the new alternative energy product by integrating technology and service to create value for customers, suppliers, and shareholders. In mid 2006, the Company formed its transportation subsidiary, Bio Mineral Transportation, LLC, to better serve the transportation needs of customers. Then in late 2006, the Company purchased its remaining ownership interest in Florida N-Viro, LP. These purchases have changed the revenue sources from passive, royalty-based to active and operational based on long-term contracts in place today.

PRODUCTS AND SERVICES

N-VIRO SOIL™

The N-Viro Soil™ process involves mixing wastewater residuals (sludge) with an alkaline admixture and then subjecting the mixture to a controlled period of storage, mechanical turning and accelerated drying. The N-Viro process stabilizes and pasteurizes the wastewater residuals, reduces odors to acceptable levels, neutralizes or immobilizes various constituents and generates N-Viro Soil™, a product which has a granular appearance similar to soil and has multiple agricultural uses.

N-Viro and its licensees have successfully marketed and distributed millions of tons of N-Viro Soil™ for beneficial reuse. Today, N-Viro Soil™ facilities built under N-Viro's license are still in operation in numerous states and in foreign countries. An N-Viro Soil™ facility was commissioned this year in Tel Aviv, Israel and there are five facilities using N-Viro's advanced process in Canada. Our best selling product is N-Viro Soil™ and a tremendous market exists for the future sale of N-Viro Fuel™.

N-VIRO FUEL™

N-Viro Fuel™ has physical and chemical characteristics similar to coal. This alternative energy product has been shown in full-scale pilot operations to be compatible with coal in commercial boilers; N-Viro Fuel™ was successfully tested as a substitute for coal mix and co-fired with coal at the T.B. Simon Power Plant on the campus of Michigan State University, United States in 2007. In that testing, optimum boiler performance was maintained, air emissions were within regulatory limits, and ash chemistry was unchanged. (Although fluidized bed boilers are the preferred design, pulverized coal (PC) and multiple hearth boilers are also suitable.)

Burning N-Viro Fuel™ with coal at existing coal-fired power plants avoids the capital expense of building stand-alone biomass plants. The coal-fired plant is able to lower its carbon footprint by substituting part of the coal feed with a renewable biomass fuel, and the characteristics of N-Viro

Fuel™ reduce SO_x and NO_x emissions.

N-Viro Fuel™ has been recognized by the Environmental Protection Agency as a biomass-derived fuel, and is a patent protected technology recognized in the industry as a reliable, quality product. N-Viro Fuel™ satisfies an industry need not met in the current market. There are currently 600 coal-fired power plants in the United States seeking to co-fire biomass materials. The most critical determining factors for biomass selection is the heating value of the material (Btu/pd) ash content (ash can be a disposal liability, but our process uses the ash for stabilization process) and particulate size (ease of material handling).

COMPETITIVE ADVANTAGES

N-Viro's inherent strength is the company owned patents that are unchallenged in their rugged simplicity. The synergetic patents work as a system to recycle and turn bioorganic materials into useful products. Intellectual Property (IP) is at the heart of the business and is N-Viro's most valuable intangible asset. The company-owned patents give us exclusive rights to the fuel technology in the United States and several foreign



countries. The exclusive rights to the method in all patented countries include the treatment of organic waste, which consists of controlling ignitability, odor control, ease of handling and storage, as well as the controlled burning of organic waste as fuel for power generation.

The organic waste management industry has attempted to develop technologies to convert organic wastes into alternative fuels for power generation. Unfortunately, the industry to date has been unsuccessful due to the physical and chemical characteristics of the waste or waste derived fuel. Sludge and other organic waste cannot be fed through conventional fuel handling equipment due to its high water content and particle size, among others.

Competing companies such have developed thermal sludge drying systems that produce sludge-derived pellets with high organic content and low moisture content. These companies have suggested that uses for the pellets include an alternative fuel. However, these pellets have not been demonstrated to feed in a manner that is compatible with the coal stream. This would include movement through conveyance and handling equipment without segregation, through pulverizers without powdering, and without explosive vapor release. More importantly, these pellets have low combustion temperatures and unstable ignition profiles, which means the product has a high probability of igniting while in the material handling or storage phase prior to entering the boiler. Self-ignition and resultant fires are well documented. Therefore, power generators would not use existing coal handling and conveyance systems for these unstable products.

N-Viro differentiates itself from the competition with its ability to produce a product, N-Viro Fuel™, which has the physical and chemical characteristics similar to that of crushed coal. Therefore, N-Viro Fuel™ addresses the problems of handling, storage, and self-ignition.

PROJECTS

Currently a portable full-scale N-Viro Fuel™ system is in western Pennsylvania for a full-scale test burn at a private utility company seeking alternative energy products to co-fire with coal to satisfy their commitment under the state renewable portfolio standard (RPS) mandate.

A site specific test utilizing a 10% substitution of N-Viro Fuel™ was performed in western Pennsylvania on September 9 and 10, 2011 at a commercial power plant.

The overall testing measured the performance, operability of the material and ash content. The test results confirmed that N-Viro Fuel™ in a 10% substitution performed well working within the parameter of emissions and operations.



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Measurements of boiler efficiency and the amount and type of emissions were monitored and reported to the Pennsylvania DEP. Following the completion of these tests, the portable unit is projected to relocate for another site-specific power plant test burn where development efforts are underway.

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