



Department of  
**Environment &  
Conservation**



## SE International, Inc.

Summertown, Tennessee - Radiation Detector Manufacturer

SE International, Inc. (S.E.I.) is a leading manufacturer of ionizing radiation detectors under the Radiation Alert® brand. S.E.I.'s Summertown facility designs, develops, and manufactures nuclear radiation monitoring instruments for the environmental, laboratory, health physics, industrial hygiene, security, emergency response, and educational industries, such as Geiger survey meters, radiation area monitors, radiation spectrum analyzers, software, and apps. Their compact handhelds offer high sensitivity to numerous types of ionizing radiation detection including alpha, beta, gamma, and X-ray radiation. The survey meters come with a certificate of conformance from the factory and hold a steady calibration. As a general rule of thumb, the instruments should be calibrated annually, which is a service that S.E.I. also provides. S.E.I. sells their products directly to consumers and has a strong network of domestic and international distributors.

The facility was established in 1979 as Solar Electronics, which produced solar powered two-way radios that could be used in remote locations. They worked very closely with TVA to create demonstration projects all over the southeastern US involving photovoltaic arrays and wind energy. During that time, they also produced a small fetal heart monitor and from that instrument, the idea of a small radiation detector was born. Throughout the years, S.E.I. has worked with numerous companies and received recognition for their quality products, international sales, and conservation efforts.

The management team periodically goes through all of their manufacturing and maintenance processes to identify and implement materials and inputs that are green alternatives whenever possible. The process of identifying green alternatives has the benefits of reducing the generation of waste and eliminating the need for hazardous waste management. S.E.I. has an active recycling program for all of their breakroom

 **S.E. INTERNATIONAL, INC.**

- Established 1979
- Employs 16
- Member since 2002



and office waste. They reuse their packaging materials until the cardboard and other materials are worn out, then recycle those.

S.E.I. is located in the small town of Summertown, TN. Being such a tight knit community, a majority of the employees live fairly close to the facility with access to backroads. These backroads have a low amount of vehicle traffic, making it feasible for the employees to use alternative transportation to get to and from work. When you first pull into the facility, you will see a parking lot with more golf carts and bikes than cars. This is just one of the many things that S.E.I. does to help reduce their environmental footprint.

About nine years ago S.E.I. used private investors and federal tax incentives, along with Lightwave Solar, another TN company, to receive state grant funding for the installation of a 17.29 kW DC bank of solar panels on the property. With an annual solar production of approximately 21,966 kWh, the array produces enough electricity to run the facility and then some. The solar array also feeds back into the power grid as part of the Green Initiative program, which provides the customers of TVA the option of obtaining electric power from renewable energy sources.



Over the past few years, the company has provided two Community Sustainability Grants to local volunteers who converted 12 acres of land to organic vineyards and a Food Forest. The volunteers accomplished this via permaculture, which is a system of agricultural and social design principles centered around simulating or directly utilizing the patterns and features observed in natural ecosystems. The Food Forest features native varieties of berries, fruit, and nut trees that, once mature, will provide food sources for many years with a minimal amount of maintenance.

S.E.I. not only manufactures tools to help protect against nuclear radiation and radioactive isotopes, they also create a workplace that is determined to protect the environment. Reducing carbon emissions with alternative transportation, reducing energy use with their solar array, and reducing waste generation by having an active recycling system are all tremendous feats that shouldn't be overlooked. S.E.I. is a fundamental example of how a small company can create large changes in their community, their industry, and even their state by thinking outside the box and using creative innovation.

The [Tennessee Materials Marketplace](#) is a collaboration between industries, facilitated by an interactive online materials exchange, to recycle, repurpose, and return material discards back to Tennessee's economy. S.E.I. learned of the marketplace initiative through its membership in the Tennessee Green Star Partnership.

The [Tennessee Green Star Partnership](#) is a voluntary environmental leadership program designed to recognize industries in the state that are committed to sustainable practices. If you are interested in joining S.E.I. and other sustainable industries in Tennessee by becoming a member, please contact us.