Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

Trans-Tech, Inc.

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Manufacturing
Member since April 2013

Management and Leadership

☑ **Environmental Policy Statement**

Trans-Tech is a wholly owned subsidiary of Skyworks Solutions Inc. (SWKS, Nasdaq). Trans-Tech has adopted the corporate Sustainability Policy, although we use a site specific Environmental Management System (EMS) for our facilities in Maryland. Trans-Tech has committed resources to attain ISO 14001 compliance & certification.

www.skyworksinc.com/downloads/investors/skyworks_sustainability.pdf

☑ **Environmental Team**

An Environmental Improvement Team (EIT) is structured from a cross section of representatives including but not limited to: Facilities, Engineering, Quality & Product Engineering. Prior to this team concept, Facilities conducted most of the environmental initiatives. The inclusion of representatives not directly responsible for EHS issues brings "outside of the box" concepts that had not previously been considered.

The EIT meets weekly and is presently pursuing ISO 14001 certification. The EIT identifies our exposure issues using the EMS' Significant Aspects & Impacts and develops Objectives & Targets for our continuous Improvement initiatives.

☑ **Annual Environmental Goals**

We are in our first year of compliance to the EMS and have identified

- *Water Conservation*
- *Solid Waste Reduction*
- *Reducing Surfactant Cleaner Use,*
- *Operational Controls for Particulate Emissions*
- *Energy Conservation*

We are presently developing baseline data of the first four Objectives & Targets. A review of the baseline data will allow our team to set goals & develop metrics to monitor progress. Our initial observations from available data & experience have identified several initiatives that can result in immediate improvements, several of which have already been deployed. Energy detail is provided in another section of this application.

☑ **Environmentally Preferable Products and Services**

Design for Environment is applied to all New Product Introductions. We have eliminated lead solder in most commercial product applications, although some customer specifications call for lead based components.

☑ **Environmentally Preferable Purchasing**

Adoption of the corporate Sustainability Policy mandates that conflict minerals be procured from a Sustainable source and compliant with ROHS. Requisitioning of capital equipment requires a pre-purchase approval checklist that must be completed by the engineering, production & facilities departments for accountability in evaluating the environmental impact PRIOR to acquiring subject equipment. Use of Pre-purchase evaluations also minimizes the need for change orders & completes the scope of work required for the project. We are presently developing a site specific Supply Chain /Sustainability program to enforce discipline to our service & components providers.

☑ **Independently-Audited Environmental Management System**

TransTech is currently participating in the MDE-Mtech Environmental Management System Implementation Program. We are scheduled for an ISO 14001 Internal Audit in the October quarter of 2013. It will be done through an auditing firm contracted by the corporation.

Waste

☑ **Solid Waste Reduction and Reuse**

Defined in our Significant Aspects, we have generated Objectives & Targets for Solid Waste Reduction. We are presently engaged with the service

provider to baseline, landfill scale tare weights, to better define the solid waste impact. Initial service cost review justifies an FY2014 Capital Asset budget line item request to purchase or lease a solid waste compactor. This will consolidate the number of onsite containers in half, eliminate residential dumping and reduce costs for fuel & hauling charges from the service provider.

Process optimization in our foundry has reduced the amount of scrap from 180 lbs to 40 lbs per month. This scrap would have conveyed to the wastewater stream for Industrial WWT & processed for solids removal that ultimately ends up at the county landfill.

Process optimization in the past year has resulted in record performance metrics for high product yield & low scrap values.

Battery collection containers are placed throughout the facility for employees to dispose of any batteries used in production and/or home use. These batteries are then shipped out as universal waste and no longer mixed in the general trash collection.

Fluorescent lamps are collected and stored for periodic disposal with the Universal Waste Stream. Although there is no county regulation that mandates this separation, Trans-Tech has chosen to extend our environmental responsibility to include this waste stream in the Universal Waste category & pays a fee for this service. The alternative is that the lamps would be mixed with the landfill refuse

☑ **Recycling**

Trans-Tech recycles paper, cardboard & aluminum cans. The cans program is run by the employees. The paper/cardboard recycling is done for environmental considerations as well as a cost reduction. Trans-Tech incurs a cost for the cardboard recycling service. The alternative is that the cardboard would go to landfill having been formerly mixed with general refuse.

Recycled metals reclaim is conveyed to a local scrap company and returned a combined weight of 19,000 lbs of steel, brass, copper & aluminum for FY2012.

Precious metals reclaim is collected and shipped annually. The service provider used for this practice is the only service provider in the US that is LEED certified. Reclaim weights & dollars for precious metals are proprietary information.

Recycling product waste continues to be a challenge as the waste stream is a combination of constituents that are not cost feasible to separate. We continue to pursue alternative means of classifying/sorting the waste stream in order to realize a more responsible disposal than general landfill.

Recyclable wooden & plastic pallets are exchanged with vendors where possible to reduce scrapping them. Trans-Tech also incurs a fee for service to have residual pallets shipped offsite for recycling into serviceable condition.

A recycled paper void fill system has replaced Styrofoam as a packing cushion for all product shipments unless otherwise specified by the customer. Projected annual savings by switching to paper from Styrofoam is calculated at $13,000.

Packaging for DOD shipments is recycled several times over. The containers are recycled between Trans-Tech and the customer until they have reached their useful life, at which time the containers are consolidated with cardboard collection. This innovative packaging solution has been ongoing since 1981.

Eliminated bottled water delivery to the facility and replaced with RO units to provide drinking water. Trans-Tech also issued re-useable water containers for employees to reduce the number of paper cups consumed. This practice eliminated transportation of bottled (jugs) water reducing operating expenses & fuel necessary for the deliveries.

☑ **Hazardous Waste/Toxic Use Reduction**

Eliminated the use of a potassium dichromate (CAS 7778-50-9) based surfactant that had to be shipped offsite as Haz Waste and replaced with a Phosphoric Acid (CAS7664-38-2) aqueous based solution that can be treated onsite through our Industrial WWTP. The last of the 7778 waste was manifested in March 2013.

Historically, we have replaced the use of organic solvents, then used for automated clean line parts cleaning and converted to water-soluble concentrates that can be treated onsite through the Industrial WWT. The transition of organic solvents to aqueous based solutions for parts cleaning eliminated the hazardous solvent waste stream.

VOC's were reduced 50% by simply covering a cleaning chemical tank with a metal cover after production use.

Annual usage for silver paste and butyl acetate was reduced by 50% by removing a redundant machine from service. The VOC emission for this process was also reduced by 50%.

Energy

☑ **Energy Efficiency**

Ongoing electrical energy conservation has resulted in a reduction of 670,000 kWh over the past 12 month period when compared to the previous year.

Energy conservation is accomplished by better utilization of assets and removing some underutilized equipment from service. Considerable evaluation is done before this happens as the process equipment requires significant maintenance and start up costs to return those assets to service.

Air compressors have been replaced with variable frequency models to reduce energy costs. Our main manufacturing facility previously utilized 2-75HP compressors in a lead-lag control 24/7/365. These were decommissioned as primary compressed air assets in 2011 and replaced with a 100HP variable frequency compressor now in operation as the primary source for compressed air to the factory. The old 75HP compressors are kept in serviceable condition, used as backups and when maintenance is performed on the 100HP VFD compressor. Energy conservation for this project resulted in a reduction of 292,134 kWh per year.

- *The same strategy was deployed at our satellite facility in Frederick. Two 20 HP compressors in service were replaced with a single variable frequency 25HP compressor. Energy conservation for this project resulted in use reduction of 62,187 kWh per year.*

☑ **Renewable Energy**

Trans-Tech has evaluated the use of solar energy with a service provider for operations in Maryland. Current generation rates from our service provider are such that the investment for solar, including the lease/incentives are not cost effective at this time.

Water

☑ **Water Conservation**

Identified in our Significant Aspects, we are presently in the baseline phase of isolating parts cleaning rinse water usage from the manufacturing

automated clean-lines. Initial calculations indicate a reduction of over 186,480 gallons (6.5%)of tap water per year by deploying flow control apparatus and awareness training on a single automated line. The Trans-Tech discharges are regulated under the NPDES authority. Cost savings for this project is calculated at $6,340.32 annually.

☑ **Stormwater Management and Site Design**

A Special Condition in the NPDES calls for a Storm Water Pollution Prevent Plan (SWPP). All employees are trained on the SWPP plan. Monthly inspections are done in compliance with the written program. Gabion Filters were installed at the road frontage storm swale to reduce debris from entering the water stream. Gabions are serviced after rain storm events and as required by housekeeping and landscaping services.