



Expanded Polystyrene Densification

Our Mission:

To provide meaningful employment for adults with developmental disabilities and help them reach their full potential.



LAI's 4 Business Units

- Contract Packaging
- Retail Garden Center
- Secure Document Destruction
- Dock Foam Densification



Foam Densification

We turn this.....



Into this!



The Beginning

- Ameren requirements by 12/31/2008
- MDNR (Missouri Department of Natural Resources) enforced clean up of 2 sites (out of 10)
- Solid Waste Management District T looked for options to keep foam out of landfills
- LAI was the solution and began densifying EPS in the fall of 2013.



If at first you don't succeed...

- EIERA (Environmental Improvement and Energy Resources Authority) granted machine
 - Started with a melting unit- didn't work due to the moisture in the dock foam
 - Changed to compaction but 2nd machine failed immediately
 - 3rd machine was more robust but compacting with a hydraulic ram didn't work because the material varied too much
 - 4th and Final Machine works great for both wet and dry Expanded Polystyrene
- Lake of the Ozarks Solid Waste Management District T-granted a replacement auger so that routine maintenance can be performed with minimal interruption to production

Foam Densification



- Wood Splitter is used to cut foam into smaller bricks that can be fed into machine
- Pre-breaker grinds the foam up
- Auger and compaction chamber densifies foam into logs

- Densified EPS logs are sold to manufactures who turn them into new packaging styrofoam, black pictures frames, or trim



Recycling Creates Meaningful Jobs

- 4 full-time jobs created
 - 2 to split and load the foam
 - 1 to operate the infeed belt
 - 1 supervisor/forklift driver



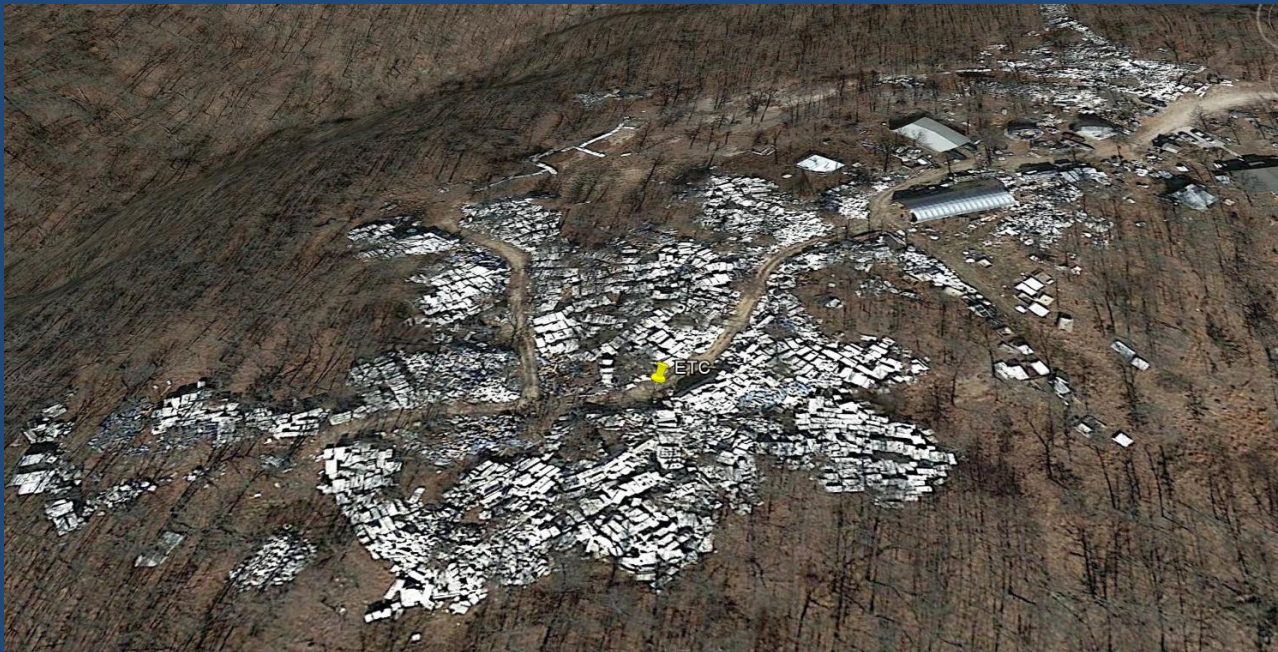
Recycling Creates Meaningful Jobs

- 2 part-time jobs created
 - There is a constant need for clean up
- Hauling and loading of foam from sites was another full time job created



Foam from Dump Sites

- 1st Site: Bruntsman
 - 82 40 yd. dumpsters diverted, 17.5 tons recycled
- 2nd Site: ETC
 - 312 40 yd. dumpsters diverted, 67 tons recycled



Foam from Dock Companies

- 96 40 yd. dumpsters diverted, 21 tons recycled
- Mixture of encapsulated and un-encapsulated
- Dock Companies had to cut the tops of the capsules off



No More Foam Coming In from Sites

- Finished processing foam brought in from MDNR's project on 7/19
- More foam remains at the ETC site
- More foam remains at 8 other sites as well
- MDNR did not fund the ETC site clean up this fiscal year
 - Site size was underestimated, market for end product was uncertain, no longer a high enough priority with current budget
- Working with Legislators to keep the focus on this project
- MDNR is watching for future opportunities to fund the project (SEP funds, Enforcement)

Alternative Sources

- Local Boat Dock companies
 - Encapsulated foam has a life span of 10-15 years.
 - Encapsulation Mandated 9 years ago
 - We have taken foam from dock companies in the past but we weren't always able to take loads when we were overflowing with foam from the sites
 - Businesses don't have an incentive to dispose of old foam if they are able to store it, its not cheap
 - Determined pricing and sent out letters advertising how LAI can help save money with foam disposal



Alternative Sources

- Manufactures or businesses who have a need for foam disposal
 - Furniture stores, Retailers, pharmacies, boat manufactures, etc.
 - May not have room or a means to store mass quantities, or a way to transport it
 - Mailed out letter with pricing and suggestions on how to store, offered transportation



Pricing per Cubic Yard

FOAM TYPE	LAI	LANDFILL
Un-encapsulated dock	\$7.50	\$8.50
Encapsulated with tops cut	\$9.50	\$9.75
Encapsulated uncut	\$10.50	\$9.75
Packaging Foam	\$2.00	\$3.25
Hauling Fee	\$1.00 per mile	\$30.00 delivery

- LAI priced our services so that we could compete with the landfills.
- Landfill costs were estimated based upon a 40 yd dumpster holding 4 tons of un-encapsulated foam and 4.58 tons of encapsulated foam.
- Local trash companies are able to provide dumpsters and hauling directly to LAI if a customer needs.

LAI's Other Services

- Secure Document Shredding
 - Shred containers provided
 - Regular Scheduled service
 - One Time Pick Ups for .12/lb. \$50.00 pick up fee
 - Drop Off service for only \$12 (1st 100 lbs.)
- Cardboard Recycling
 - Free for in town bulk customers



We need your support!



Help protect the jobs
of adults with
disabilities:

- Donate-Time or Money
- Spread the word about LAI's services
- Support the site clean up efforts in any way possible