

Living As We Speak

Sustainability within Tremco Commercial
Sealants and Waterproofing

What is Sustainable?

- **Sustainability/Sustainable Building:**
 - Practice of designing and then subsequently constructing and using a building that is balance optimized to account for the **Social, Ecological and Economic (SEE)** aspects of the building and its components.
 - It is a relative term... there is no 100% sustainable.
- In taking the word sustainable and applying it to operations or even culture, we just apply the SEE aspects similarly...
 - Example: Reusing cooling water saves a resource needed for survival (social), saves on the water bill (economic) and prevents thermal pollution due to warm water discharge (ecological).

Influential Factors

- Climate Change
- Air Quality/VOCs
- Land and Water Quality (Landfills, Clean Water)
- Regulation, Legislation and Politics
- Energy & Material Costs/Supply
 - Oil and Water
- Design Trends and Concerns
 - LEED Related
 - ASHRAE, EnergyStar, etc.

Information

- We have already mentioned a lot of things that we do to provide information.
 - LEED Letters
 - Graphic and Table
 - VOC Table
 - Spec Language
 - Web site with information and educational information links
- We also have some internal processes to make getting information and planning done easier:
 - LEED Letter Process
 - VOC and regulatory updates

The Future

- However, there are a lot of other activities that will influence what we do in the near future and how we are perceived as an organization.
- These may not effect you today, but knowing what is going on can help better prepare for tomorrow.
- These are both internal as well as external, and will impact all areas of the business.

Sustainability & Our Products

- We have many other presentations on this but in short...
 - We help control air movement which increases HVAC efficiency.
 - We have reflective coatings that reduce roof heat.
 - We have drainage to collect and reuse water.
 - We have many low and zero-VOC products
 - We have some products with renewable materials
 - We have products with recycled raw materials
 - We have packaging with recycled content.
- Okay, that's nice, but what are we really doing???
- After education, credibility is the second biggest concern of suppliers when it comes to sustainability. We are real, and we can tell you why...

Education

- The number one need is education when it comes to sustainable design per USGBC surveys
 - Training our technical service, marketing, R&D and sales staff on sustainable design.
 - Providing web based presentations (over 300 slides) on sustainable topics.
 - Training in-house experts to continue to be leaders in the organization and the field.
 - Educating all staff on various “green” topics that impact their lives within our industry and in society.
 - Provide links to additional resources, research and general sustainability information.
 - Case studies making green building a reality to serve as real-life examples.
 - Having two AIA approved presentations on sustainable design for “boxed-lunches”.
 - First company in Division 7 to have these.

In the Community

- Involved along with RPM sister-companies in the rebuilding of Greensburg, KS
 - Town destroyed by tornado in May 2007 that has vowed to rebuild green
 - Donations or discounted material
 - Donations of funds to community foundations
 - Educating contractors and architects on sustainable building practices, specifying and design
 - Helping bring other resources to town
 - Setting up distributor with *pro bono* and discounted material to help get the town and one of its local businesses going.
 - While we won't know for some time, we expect this to be a \$100,000+ effort on our part.

Association Involvement

- “The future is shaped today.”
- By being involved, we can shape the future in a sustainable way that is beneficial to our business, our customers and the environment.
- Associations:
 - ASHRAE
 - Reviewer of 90.1 and new 189.1
 - ASTM (E60)
 - Sit on and active in standards writing for sustainable building
 - One of only two sealant manufacturers involved at this level.
 - USGBC
 - Active in seeking clarification of ambiguities in future versions of LEED
 - Active in International harmonization group
 - CSI/EPA
 - Working with these cosponsors to found new green building products alliance to move forward sustainable products.
 - HPBCCC
 - Working with several organizations above through this to educate lawmakers on how buildings should be built, using our products as intended.
 - ICC
 - On review committee for new green code

Zero-Landfill

- Five year project
- “One man’s trash is another man’s treasure.”
- We will reuse our by-products in other materials or processes, sell or give them to those who can use them or, worst case, burn them for energy (fuel blending).
 - In first year have reduced ratio of landfill waste to material shipped by 40% on average.
 - Toronto facility no longer has any non-hazardous waste going to landfill, overall 90%+ way to goal.
 - Two of our four facilities are making money on selling their waste in FY 2010.
 - Has resulted in partnership with South Dakota Department of the Environment and Natural Resources (DENR).
 - DENR is so supportive of the concept they are helping us with our Spearfish, SD plant (Paraseal manufacturing facility).
 - As landfill costs rise, we need to manage or avoid them.
 - If we manage costs, we can minimize the need to increase prices.

Operations

- We have on-going teams looking at energy saving and process time reductions in our facilities
 - Example- reduction of TP250GC time by about 40%
 - Improves capacity and reduces energy per unit expended.
- We have initiatives in place to assess the ecological impact of the manufacturing of our products
 - Example- We are currently installing new capture and separation equipment in our Cleveland plant.
 - Will result in being able to make the first zero-VOC, zero-emissions from manufacturing urethane sealant.
 - Will also allow “infinite” use of process solvents.
 - Example: Water saving program in our Canadian facility saving 19 million gallons/year in cooling water.
- In 2010 will begin embodied energy calculations on a per ton basis for our products.
- But also...
 - Preparing for ISO-14001 certification to insure we have an environmental management system with required and documented improvements in place.

Responsible Chemistry

- We have integrated into our core strategy that we will evaluate and provide preference to “green” chemistry solutions.
 - So long as the product performs, we will make the switches.
- Have a management team in place to prioritize, develop a strategy and assign specific projects/actions to target chemistries of concern.
- Targeted chemistries of concern:
 - Phthalates
 - Chlorinated Paraffins
 - Organometallic catalysts
 - Minimize formaldehyde and trace cyclosiloxanes.
 - Other chemistries as they are identified.
- Also an extension of our switch to renewable based and recycled content raw materials.

Product Development

- We have integrated check points into our stage-gate process for product development and improvement
 - These insure we are making not only high performance products, but such products are designed with ecology in mind.
 - Makes the following requirements of all new products and significant reformulations:
 - Consideration of renewable and/or recycled raw materials
 - Consideration of Recyclability
 - VOC compliant now and in the future (5 year window)
 - Emphasis on green chemistry solutions
 - Non-phthalate plasticizers
 - No chlorinated paraffins
 - Avoiding Prop 65, marine pollutant, etc. listed chemicals
 - Water catalysis of urethanes if possible.
 - Reducing cycle times (less energy required per unit of material)
 - Evaluate “Process harvesting”
 - Taking energy or by-products from one manufacturing process and using for another

Government Involvement

- Again... “The future is shaped today.”
- By being involved, we can shape the future in a sustainable way that is beneficial to our business, our customers and the environment.
- **California- Where it all begins:**
 - SCAQMD/BAAQMD/CARB
 - Proposing new VOC levels, green coatings category
 - Looking to reduce VOC limit on architectural sealants
 - Calif. EPA
 - Working to get a greenhouse gas reduction rule that will help increase the need for sealants, air barriers etc.
 - Pushing for air barrier code in conjunction with below...
 - Working to set realistic goals on green chemistry laws
 - Push forward where it is feasible today, pull back where it is not
 - Calif. Energy Commission
 - Pushing for adoption of sealants installation in best practice and codification of tested air barrier and wall assembly systems.

Government Involvement

- DC- A Hot Bed Today:
 - Climate Bills:
 - Involved in lobbying for adoption of our technologies in code and best practice installation of them.
 - Believe we can firm-up a \$1billion/year market opportunity for primarily air barriers, transitions and sealants.
 - Supporting programs to kick start this and to enforce the codes
 - Support programs to reduce building energy consumption over period of time.
 - Eco-Labeling:
 - Involved in drafting a bill that will define properties and how to identify them... help eliminate marketplace confusion.
 - EPA:
 - Working to expand and understand WaterSense and EnergyStar programs.
 - Working to understand and execute upon strategies for TSCA reform.
 - And we can still go to Ottawa, Tokyo...

Government Involvement

- How about Canada?:
 - VOC:
 - Working to understand the new rules and where future ones will go.
 - May propose some reductions.
 - Climate Change and Energy Codes:
 - Working at provincial and federal level to understand rules, influence to be favorable for product types and proper usage/installation.
 - Green Chemistry:
 - Looking for indications on bans and what we can do to be prepared and if needed, negotiate longer times in some areas, give up time in others.

Culture Change

- In order for something to have meaning and become part of our lives, we need to integrate it into our culture...
 - Key component of the Tremco Cornerstone, our ethical and moral code.
 - Of six “Cornerstone Awards” to date as of Feb. 2010, five have had to do with sustainability related projects.
 - Integrated into our corporate vision and mission.
 - Eco-committee of employees from all facets thinking of ideas to make the office “greener” and then taking project ownership.
 - Programs such as mug contests and environmentally preferred vehicle/carpool parking to reward employees for making ecologically smart choices.

Stay Strong to Guiding Statements

- Our Vision is to become the leading provider of sustainable building design solutions which achieve economic, social and environmental balance.
- Our Mission is to expand Tremco's position as a leading supplier of sustainable design solutions while creating value for our customers and our parent organization.
- Our Goal is to fulfill our mission by providing superior solutions that will allow a building to sustain itself over time and incorporate technology and practices that will help sustain the Earth.
- Our Competitive Advantage in helping achieve sustainable design goals has been forged in our 80+ years of experience in providing product & system solutions that allow construction professionals to maximize the performance of the entire building envelope.

Holding to Our Principles

- Provide honest answers and solutions based in fact and best practice guidelines for the sustainable design concerns of our internal and external customers.
- Identify opportunities throughout our organization related to sustainability and define plans to maintain or improve as required to insure we are constantly becoming more sustainable.
- Integrate sustainable philosophies/practice into everyday business and foster Tremco expertise throughout our market segments and operations.
- Create a culture that makes this initiative eventually self-sustaining.
- Do all of this bearing in mind the three main points of sustainability.

Closing

- Tremco is committed to making sustainability a part of its operating philosophy.
- We are also committed to being true to ourselves, or customers and the environment.
- We have helped you S.E.E. how we are not just another sealant company, but that we are true to our principles and the principles of sustainability.
- We are also 100% committed to insuring that we are doing what we can to help integrate sustainability throughout our industry in a responsible way.
- We challenge our customers, competitors and ourselves to embrace this.