

Construction Specialties, Inc.

- Design, develop & sell Architectural building products.
- Privately held, founded in 1948
- 30 locations in 19 countries
- Worldwide revenues of \$300 million & staff of ~1,600
- 12 product/product lines Cradle-to-Cradle Certified Silver
- 1 product, Acrovyn 4000, Cradle-to-Cradle Gold

Our "wake up call"

Hazardous waste burner is coming

STD 22 SEPT '90

By MARK MARONEY
LEWISBURG — A hazardous waste incinerator will be built in Union County.

The announcement was made at a press conference yesterday at Lewisburg.

Those opposing the hazardous waste incinerator at the conference were from United States Pollution Control, Incorporated.

Others, the majority at the two press conferences held yesterday at Brynwood Inn and the Union County

Courthouse, were against a hazardous waste incinerator and waste facility being built in Great Township — against it for many reasons.

But, whatever the pros and cons were, the people at both conferences had no choice but to accept the news presented to them by Steve Lewis, chief executive officer and consultant for USPCCI, Bethlehem.

Lewis announced that USPCCI had recently purchased the real estate business in the 700-acre Sloopgambetta

Industrial Park, from Posswood Development Corporation.

In less than one day, the media, legislators and members of the concerned public saw principals representing the interests of a powerful company based in Bethlehem announce the purchasing of land in Union County to build a waste management facility, that will include a hazardous waste incinerator capable of burning 300,000 tons of waste per year.

"We are going to sit on this ground

for three to five years...the process is already set in motion," Lewis said.

"We'll be facing many lawsuits," he said. USPCCI, Inc. is a subsidiary of the Union Pacific Corporation.

Lewis, formerly CEO of Environmental Management Services (EMS), said USPCCI will build a hazardous waste management facility containing an incinerator as well as a waste recycling center, a laboratory and an ash management facility. It was also announced that EMS was purchased by USPCCI.

"It's not at all happy the way I found this one," said Robert Givens, executive director of the Union County Economic Development Council.

Givens said he has, for the past two years, been given information about the incineration process.

"I've been led to believe that the incineration of hazardous waste is clean, safe...the information that I've received in the last month indicates to me that it is neither clean nor safe and that the technology is not developed to the point where it would be a good neighbor or safe thing to have in our

area. He is in the process of introducing legislation into work pending the process on the exclusive right of one site from the incinerator. He will be asking Gov. Robert Casey to get involved in the issue on many issues.

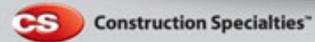
Funchild questioned whether, if an accident should arise, an evacuation of 2,600 prisoners and 650 staff was feasible.

Senator Rodger Madigan (R-) is opposed at this juncture. "I will work closely with Representatives Thurnchild," he said.

Mike Phillips (R-208) is

“Anything that changes your values
changes your behavior.”

George Sheehan
Runner, Philosopher, Author



Creating products that make buildings better

I'm not certain whether our values changed or that LEED provides a means by which our values are actualized.

“The really great thing about buildings is that they’re the one universally central point where 90% of all human activity takes place and the cure begins. Here, change isn’t dependent upon larger societal behaviors or preferences; it’s dependent upon building design and materials.”

Manage all of our environmental aspects and impacts within a world class standard:



We have a lot to keep track of and without structure and accountability we'd soon lose our way. For us that means ISO 14001 is the framework through which we manage what we're doing, audit it and continue to improve upon what we did yesterday. Being audited and scrutinized by World Class auditors keeps us grounded.

Construction Specialties Chemicals Policy

As recommended by Clean Production's
Business-NGO Working Group

1. **Know and disclose product chemistry.** We will identify the substances associated with and used in our products across their lifecycle and will increase as appropriate the transparency of the chemical constituents of our products, including public disclosure of chemicals of high concern and 3rd-party certification(s).
2. **Assess and avoid hazards.** We will determine the hazard characteristics of chemical constituents and formulations in our products, use chemicals with inherently low hazard potential, prioritize chemicals of high concern for elimination, minimize exposure when hazards cannot be prevented, and redesign products and processes to avoid the use and generation of hazardous chemicals.
3. **Commit to continuous improvement.** We will establish operational governance structures; policies and practices that create a framework for the regular review of product and process chemistry, and that promote the use of chemicals, processes, and the redesign/creation of products with inherently lower hazard potential.
4. **Support public policies and industry standards that:** advance the implementation of the above three principles, ensure that comprehensive hazard data are available for chemicals on the market, take action to eliminate or reduce known hazards and promote a greener economy, including support for green chemistry research and education.



Construction Specialties™

Creating products that make buildings better

A Google search will reveal that there are 50,000 to 60,000 chemicals/combinations influencing our lives. But only 1/2 of 1% have been looked at by EPA.

Regulation alone is never enough answer to such problems.

Industry must take responsible action.

Cradle to cradle Certification Criteria		Basic	Silver	Gold	Platinum
1.0 Materials					
All material ingredients identified down to 100 ppm level		●	●	●	●
Defined as biological or technical nutrient		●	●	●	●
All materials assessed based on their intended use and impact on Human/Environmental Health according to the following criteria					
Human Health					
Environmental Health					
Carcinogenicity	Fish Toxicity				
Endocrine Disruption	Algae Toxicity				
Mutagenicity	Dolphin Toxicity				
Reproductive Toxicity	Persistence/Biodegradation	●	●	●	●
Teratogenicity	Bioaccumulation				
Acute Toxicity	Ozone Depletion/Climatic Relevance				
Chronic Toxicity	Metals and Heavy Metals				
Initiation	Context of Ozone Depletion				
Sensitization	Context of Heavy Metals				
Strategies developed to optimize all remaining problematic ingredients/materials		●	●		
Product formulation optimized (i.e. All problematic ingredients replaced/phase out)				●	●
No wood sourced from endangered forests				●	●
Meets Cradle to Cradle emission standards				●	●
All wood is FSC Certified				●	●
Contains at least 25% GFN assessed components					●
2.0 Material reutilization/Design for Environment					
Defined the appropriate cycle (Technical or Biological) for the product and developing a plan for product recovery and reutilization		●	●	●	●
Well defined plan (including scope and budget) for developing the logistic and recovery system for this product				●	●
Recovery plan mandating on recycling the product into new product of equal or higher value				●	●
Product has been designed/manufactured for the technical or biological cycle and has a (re)utilization score >= 50			●	●	●
Product has been designed/manufactured for the technical or biological cycle and has a (re)utilization score >= 65				●	●
Product has been designed/manufactured for the technical or biological cycle and has a (re)utilization score >= 80					●
3.0 Energy					
Characterized energy use and source(s) for product manufacture/assembly		●	●	●	●
Developed strategy for using alternative sources for product manufacture/assembly			●	●	●
Using 50% solar energy for product final manufacture/assembly				●	●
Using 50% solar energy for the product					●
4.0 Water					
Created or adapted water stewardship principles/guidelines			●	●	●
Characterized water flows associated with product manufacture					●
Implemented water conservation measures					●
Implemented innovative measures to improve quality of water discharge					●
5.0 Social Responsibility					
Publicly available corporate ethics and fair labor statements (or adopted as a creative company)			●	●	●
Identified third party assessment system and begun to collect data for that system				●	●
Accredited third party social responsibility assessment, accreditation or certification				●	●



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Criteria	Possible Sources	Green	Yellow	Gray	Red
Carcinogenicity	MAK, IARC, ACGIH, NTP, EPA	Not known or suspected of being a Carcinogen; Negative Prokaryotic assays in the absence of Eukaryotic	Not classifiable as a human carcinogen	No mutagenicity data	Known or suspected Carcinogen
Disruption of Endocrine System	Published lists (e.g. Coborn list, EU list, HCS) and Peer-Reviewed research reports	Not known or suspected of being an Endocrine Disruptor			Known as a known/suspected endocrine disruptor supported by peer-reviewed science
Mutagenicity	Peer reviewed test data (e.g. NTP, CCRTS, GENETOX)	Product has been tested and is not mutagenic to eukaryotes	Negative Ames or prokaryotic assays only	No data available	Positive Eukaryotic mutagenicity tests
Reproductive Toxicity	Peer reviewed test data, CA 65 list, MAK	Not known or suspected of being a reproductive toxin			Substance has positive test results or is listed on a reproductive toxic
Teratogenicity	Peer reviewed test data, MAK list, CA 65 list	Not known or suspected of being a Teratogen	Not teratogenic as long as MAK value is observed, equivaical teratogenicity data		Positive teratogenic test results or listed as a known or suspected teratogen
Acute Toxicity	MSDS, RTECS, NLM, AUCIUD	Oral/Dermal LC50 > 2000 mg/kg bw/L; LC50 (4hr) > 4,000 mg/m ³	2000 mg/kg = Oral/Dermal LC50 = 200 mg/kg; 4000 mg/m ³ = Inhal. LC50 (4hr) = 400 mg/m ³	No data available	Oral/Dermal LC50 < 200 mg/kg bw/L; LC50 (4hr) < 400 mg/m ³
Chronic Toxicity	Peer reviewed studies	NOAEL > 100 mg/kg, low chronic toxicity	Moderate chronic toxicity	No data available	High chronic toxicity
Sensitization	MAK list, NLM, MSDS, BDVV list, Peer reviewed studies	Not sensitizing to skin or always (either proven via experience or test)	Equivalent sensitization data	No data available	Known as a skin or always sensitizer or has tested positive in sensitization tests
Irritation of Skin/Mucous Membranes	RTECS, MSDS, EU Risk Phrases	Mild or no irritation	Mild to moderate irritation	No data available	Severe irritation, risk of severe burns or serious damage to eyes
Other (ocular function, skin penetration potential, immunosuppressant, etc)					

Criteria	Possible Sources	Green	Yellow	Gray	Red
Vertebrate Toxicity (Fish)	EPA ECO-TOX, MSDS, HSDR, QSAR data	96Hr LC50 > 100 mg/L; QSAR 96Hr LC50 > 100 mg/L	100 mg/L = 96Hr LC50 > 10 mg/L; 100 mg/L = QSAR 96Hr LC50 > 1 mg/L	No data available	96Hr LC50 < 10 mg/L; QSAR 96Hr LC50 < 1 mg/L
Invertebrate Toxicity (Daphnia)	EPA ECO-TOX, MSDS, HSDR, QSAR data	96Hr LC50 > 100 mg/L; QSAR 96Hr LC50 > 100 mg/L	100 mg/L = 96Hr LC50 > 10 mg/L; 100 mg/L = QSAR 96Hr LC50 > 1 mg/L	No data available	96Hr LC50 < 10 mg/L; QSAR 96Hr LC50 < 1 mg/L
Aquatic Plant Toxicity (algae)	EPA ECO-TOX, MSDS, HSDR, QSAR data	96Hr LC50 > 100 mg/L; QSAR 96Hr LC50 > 100 mg/L	100 mg/L = 96Hr LC50 > 10 mg/L; 100 mg/L = QSAR 96Hr LC50 > 1 mg/L	No data available	96Hr LC50 < 10 mg/L; QSAR 96Hr LC50 < 1 mg/L
Persistence/Biodegradation	MSDS, HSDR, Peer reviewed test data, QSAR	T(1/2) < 30/90 days water/sediment; Readily Biodegradable (based on OECD tests)	30/90 days < T(1/2) < 80/180 days air/water; Ultimately Biodegradable but not readily	No data available	T(1/2) > 80/180 days water/water; Not Biodegradable/readily-bi
Bioaccumulation					

Challenges of getting toxics of our products

- Internal – lack of consistent consensus
- Moving forward & backward at the same time
 - New Product Development: informed and convinced
 - MBDC review of existing
- Alternatives are available, but...

Strathmore Performing Arts
Center
Bethesda, MD



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- ▶ SIN Database
- ▶ Latest on SIN
- ▶ SIN Reporter
- ▶ Use the SIN List
- ▶ Publications



THE SIN (Substitute It Now!) LIST

The SIN List is an NGO driven project intended to speed up the transition to a toxic free world. The SIN List 1.1 consists of 206 (updated in October 2009) chemicals that have been identified as Substances of Very High Concern based on the criteria established by the new EU chemical regulation, REACH. The aim of the SIN List is to push the legislative process and provide a tool that businesses and other actors can use to substitute hazardous chemicals with safer alternatives - ahead of legislation.

SIN List tool for Investment Analysis

The New York-based investment research firm RiskMetrics has released a new report "REACH: Strategic Risks and Opportunities," which uses the SIN List 1.1 update to highlight corporate exposure to potential regulatory action, management readiness, and strategic profit opportunities that may arise from REACH. "A key value of the SIN List here is that it provides companies a peek into the future" says Brian Est, Senior Analyst at RiskMetrics.

Member States' list going SIN-size

Six EU Member States, joined together in an informal working group, has agreed on a list of 476 substances to be prioritised for the Candidate List, corresponding to 99 percent match with the SIN List. "This list of substances is clearly inspired by the SIN List and the SIN List Methodology and demonstrates the impact of the SIN List", says Anne-Sofie Andersson, ChemSec Director.

[see Read more](#)

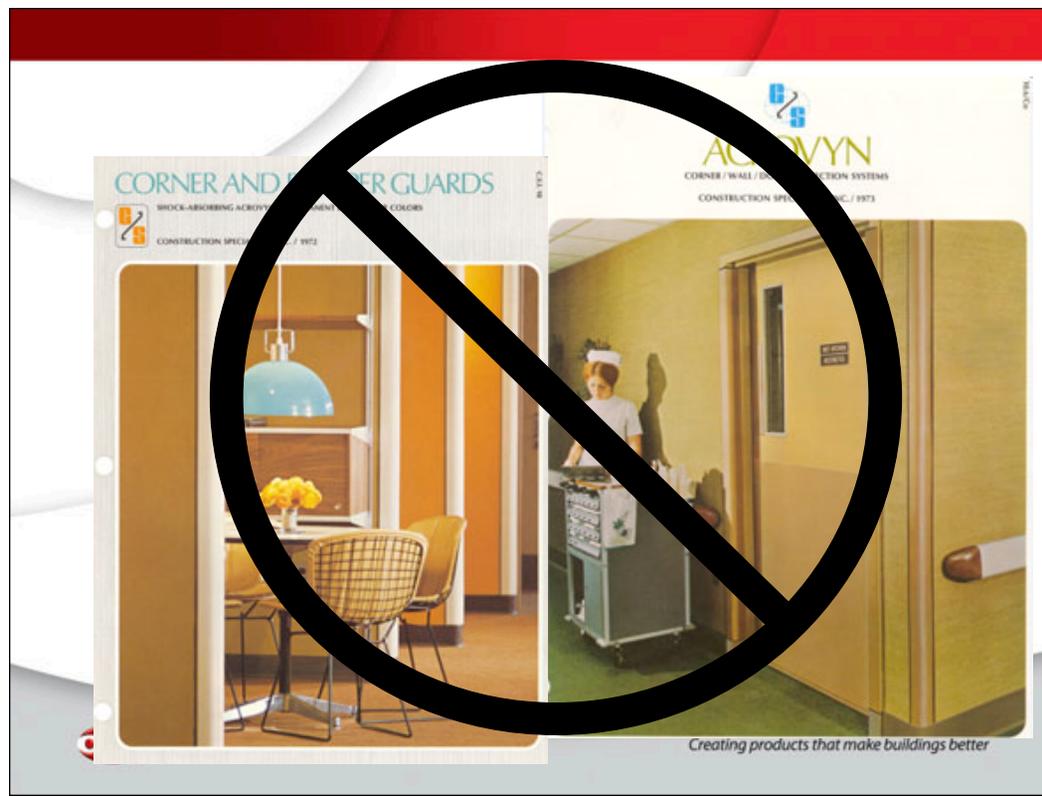
What's New?

- 15 March 2010
→ ChemSec and other NGOs urge Commissioners to speed up REACH implementation
- 09 March 2010
→ ECRA proposes eight new substances for Candidate List
- 04 March 2010
→ SIN-report warns of floods of e-waste in threat to developing countries
- 02 March 2010
→ Friends of the Earth found Bisphenol A in beverages

Perkins-Will Precautionary List

Radical Transparency

- Bisphenol A (BPA)
- Phthalates
- Chlorinated Polyethylene (CPE)
- CPVC
- Chloroprene (2-Chlor-1, 3-Butadine)
- Chlorosulfonated Polyethylene (CSPE)
- PVC
- Halogenated & Brominated Flame Retardants
- Polystyrene
- Polyurethane Foam
- Urea-Formaldehyde
- VOC
- Cadmium
- Copper (exterior)
- Hexavalent Chromium (V1)
- Lead
- Mercury
- Organostannic Compound
- Bromochlorodifluoromethane
- Chloroforocarbon (CFC)
- Hydrochloroforocarbon (HCFC)
- Perfluorocarbons (PFC)
- Arsenic
- Creosote
- Pentachlorophenol



We created and developed the Wall Protection business in the late 60's and these are the oldest of our catalog covers I could find.

We used the best product of the times. PVC.

And continued to use it exclusively until 2004 when we added a non-pvc material to the line.

We're now moving away from PVC all together and by mid-year, or earlier as need tooling comes on line, will sell only a PETG PBT-free product.



cradle to cradle™
PRODUCT CERTIFICATION

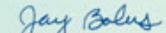
SILVER

IS HEREBY GRANTED JANUARY 9, 2010 TO JANUARY 8, 2011

**Construction Specialties, Inc.
Acrovyn® 4000 Wall Protection**


William McDonough
PRINCIPAL AND CO-FOUNDER


Michael Braungart
PRINCIPAL AND CO-FOUNDER


Jay Bolus
VP TECHNICAL OPERATIONS



Cradle to Cradle is a service mark of MBDC.

TSCA Reform

- The need for environmentally responsible building products is estimated to be \$10 billion per year. The market awaits.
- Availability of info for new product development will shorten time to market entry.
- Information available without each having to pay/gather on their own will reduce cost of R&D.
- Availability of new materials
- Buildings are at the forefront. 90% of what we do takes place in a building.
 - Furnishings & building materials act on our indoor environment.
 - Environmentally responsible design is chemically responsible design.
- Outcome & behavior cannot be separated; it's not just about products
- Public discussion = public education = market change & market pulls business forward.

Influencing beyond our borders:
Working with our suppliers in the Far East we asked that they implement
ISO 14001 as their environmental management system.



Extend the boundaries

“The idea of aspirational goals is absolutely critical for changing the future.”

Kevin Hydes
Chair, World Green Building Council