

# COMMUNITY CONNECTION

Hemlock Semiconductor, L.L.C.

Issue 3 • Spring/Summer 2011

## *Greetings:*



I'm Mike Mauser and my family and I recently relocated to Clarksville from Shanghai, China, where I was the Facility Emergency Response Team Leader at another new facility that Dow Corning Corporation was building. Dow Corning Corporation is one of Hemlock Semiconductor, L.L.C.'s parent companies.

I'm happy to join the Hemlock Semiconductor, L.L.C., team where I serve as the Loss

Prevention Team Leader – which closely resembles the role of a fire chief. My job is to help prevent and prepare for emergencies in the unlikely event that one should

occur. That includes hiring and training staff members to mitigate risk at our site and operate it safely, and to work with local and regional emergency management personnel.

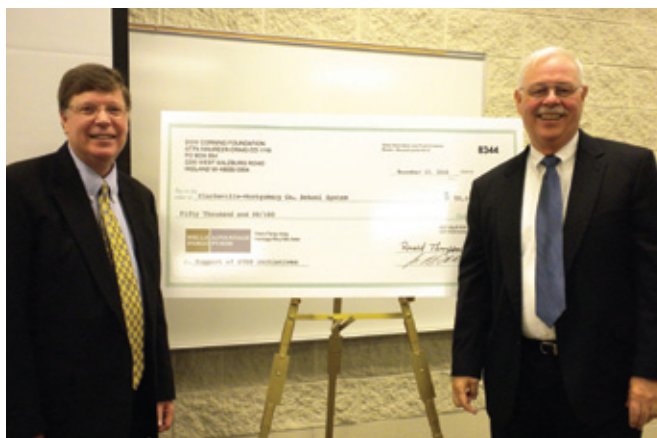
I'm absolutely committed to bringing all my experience to bear. I am in my 26th year as a Dow Corning/Hemlock Semiconductor employee, am a retired firefighter, and am a field instructor for Kentucky Community and Technical College System's (KCTCS) Fire/Rescue Training Program – where I have taught for 22 years. I also recently joined the Montgomery County Fire Service as a firefighter at Saint Bethlehem Station 17.

My team at Hemlock Semiconductor has been busy hiring personnel, writing procedures and purchasing equipment for the start-up of our site next year. Working closely with Steve Jones of the Montgomery County Emergency Management Agency (MCEMA) and other

*Mike Mauser  
Loss Prevention Team Leader*

# Schools Benefit from Donation Infusion

Hemlock Semiconductor Group and the Dow Corning Foundation are proud to collaborate with the local Clarksville-Montgomery County School System (CMCSS) to help accelerate the infusion of Science, Technology, Engineering and Math (STEM) into the classroom, donating \$25,000 and \$50,000 respectively. Most of these funds have been used to purchase equipment for science and math classrooms district-wide. The funds have also been used to support the school system's efforts to establish STEM Academies.



CMCSS Director Mike Harris (l) and Clarksville Site Manager Terry Strange (r)

In the interview below, Dale Rudolph, consulting teacher for science, and Karl Bittinger, consulting teacher for math, explain how this gift is helping kids learn. Elise Shelton, chief communications manager, also shares some preliminary results.

## How is this gift being used for science?

**Dale:** "We are now able to put Vernier data collection equipment into students' hands. The equipment not only makes learning relevant and timely, but also serves as a tool to solve engineering challenges, such as tracking changes in temperature, motion and pressure. This also makes it easier for teachers to teach because students can now collect the data and immediately interpret it into a graph."



Hemlock Semiconductor, L.L.C. sponsors the CMCSS Student Leadership Summit luncheon

ment allows students to work with data that are relevant on an analytical level, which leads to higher order reasoning and thinking in the math classroom."

## What specific improvements do you see?

**Dale:** "In the past, we would spend an hour collecting data, but now we can collect it every 10 seconds and spend more time analyzing it, which is more meaningful. Before, students did problems in a book – but now they collect and review the information in real time."

**Karl:** "We've also been able to purchase handheld manipulatives in math as well as geometry sketchpad software, which allows virtual manipulation and creation, again helping students attain a higher level of reasoning and analysis. It lets students spend more time interpreting the information, which builds skills in geometry and in algebra. The funding support also gave us the opportunity to purchase in-depth software training for our teachers."

## Can you explain more about "graphing calculators?"

**Karl:** "The funding allowed the school system to purchase an expanded grade level of graphing calculators for the STEM Academy. The Academy opened this school year with a freshman class and will expand each year until it is a 9-12 high school. By having the ability to buy calculators for each incoming class, there is a one-to-one student ratio for calculator usage. They can also take

it home, which helps take algebra to the next level by promoting interpretive reasoning across environments, not just procedural math."

## What are "organic molecule models?"

**Dale:** "We purchased models of organic molecules in biology to understand how the structure of the molecule determines the function in the body. As teachers have become more comfortable with the equipment, the demand for more has become tremendous – to the point where computer availability is a limiting factor."

## How have these new tools helped learning?

**Dale:** "It's been very refreshing watching this evolution of learning take place. The level of questions coming from the students is higher because they understand the topic better. It's a level of engagement that we haven't seen before."

**Karl:** "We are teaching math and science the way they ought to be taught. We're not telling it; we are letting the students discover it. We are teaching the way research says students learn best."

## What are the results?

According to Elise Shelton, these initial grants have started the transformation of teaching in Montgomery County.

"We simply need to grow it with access to more equipment, but the energy, training and commitment most definitely are here," she said. "Since this is the first year, we don't have state test scores yet. But data indicate an increase in scores on pre-ACT assessments for students enrolled in physical world concept classes in which Vernier probes were used. Plus, we've seen a decrease in discipline issues in schools where STEM has been implemented – showing active student engagement." ●

## Community Advisory Panel Update

### New Members Join the Volunteer Team

Four new members joined the Clarksville Site Community Advisory Panel (CAP) in January: Charlie Koon, Chief of Staff for the City of Clarksville; Skip Armistead, pastor for Hilldale United Methodist Church; Leo Millan, owner of Millan Enterprises; and Bonnie Principe, biology teacher at Clarksville High School.

"We're very pleased to welcome Charlie, Skip, Leo, and Bonnie to the Clarksville CAP," said Terry Strange, Clarksville site manager. "They provide diversity from the city government, ministerial, local business, and education perspective. Our desire is to have all of our CAP members learn and share with others in the community."

According to Charlie, the ability to learn and share is a privilege. "Being a part of the Community Advisory Panel is very enlightening," he said. "Not only do I have the privilege to learn about Clarksville's newest industry, Hemlock Semiconductor, I also have the opportunity to share with our community the impact this company will have on our region for many years to come."



Clarksville Community Advisory Panel Members; Back Row (L-R) Terry Strange, Mark Holleman, Curt Mize, Skip Armistead, Susan Menees, Norman Rawlins, Martha Brunet, and John Allensworth; Front Row (L-R) Charlie Koon, Beckie Moore, Ken Austion, Donna Bright, and Buck Teeter. Not pictured: Elizabeth Black, Leo Millan, Helen Morris and Bonnie Principe.

## Shelter-In-Place Guidelines *What to Do in Case of a Chemical Emergency*

In the last issue of *Community Connection*, Tom Flotemersch, manager for Environmental, Health, Safety and Security, shared information about Hemlock Semiconductor, L.L.C.'s emergency siren system, and its ongoing commitment to site and community safety.

"We not only care for the community as a company, but we also live here so we have strong personal reasons to keep everyone safe as well," he said. "We prefer to err on the side of caution, which is why you can expect to see many more communications about safety throughout the year, including pamphlets and kits that reinforce the shelter-in-place guidelines below."

### What is shelter-in-place?

Shelter-in-place is a proven and effective method of protecting both you and your family from the hazardous effects of chemical accidents, such as liquid chemical spills, vapor releases, and fires involving hazardous materials. Such accidents, while rare, could happen at any time and virtually anywhere. Possible sources of a chemical emergency include manufacturing facilities, chemical plants, warehouses, retail establishments, farms, agricultural product centers, gas stations, and transportation (such as trucks and rail cars).

**If advised by local Emergency Management agencies to shelter-in-place, then use the following guidelines:**

1. Immediately take your family and pets indoors.
2. Tightly close and latch all doors and windows.

3. Turn off all fans, heating and air conditioning systems.
4. Close fireplace dampers and any other vents to the outside.
5. Go to an above-ground room (not the basement) with the fewest windows and close the door.
6. Stuff damp towels in the open space between door and floor.
7. If necessary, seal doors, windows and any vents with duct tape and plastic sheeting.
8. If you smell chemicals, breathe through wet washcloths or towels.
9. Stay in the room and listen to the radio or watch TV for further instructions.
10. If told to evacuate, follow instructions given by emergency personnel.

### When should I shelter-in-place?

You should follow shelter-in-place procedures whenever you receive an announcement from your county Emergency Management agency of an emergency affecting your location.

Announcements can be delivered via radio, television, or some sort of dialing system (text message, or pagers). If you have any life safety concerns during emergencies, you are to call 9-1-1. If you have general questions about an emergency situation, and you live in Montgomery County, you should contact the Public Information Officer at 931.648.8482. If you

Skip, in particular, enjoys the openness. "Each member of the Hemlock Semiconductor leadership team I've met is professional, respectful, warm and willing to seek answers to questions they do not know," he remarked. "The quality of a company is usually reflected in its values, and Hemlock Semiconductor not only values making the best product, but also making a positive impact in the Clarksville community."

### **Hemlock, Michigan, CAP Visits Clarksville**

On April 14-15, eleven CAP members from the Hemlock Semiconductor site in Hemlock, Michigan, visited the Clarksville site to learn more about the company's expansion and meet the local CAP members there as well. "The interaction between the two CAPs is an excellent way to share experiences and perspectives," said Strange. "It not



live in Todd County, you may call 270.265.2501. If you have any questions about this article or its contents, you may contact Keith Sanford at Hemlock Semiconductor, L.L.C., at 931.572.4603.

### **Why not evacuate?**

While evacuations may be needed in rare situations, there would normally not be enough time to safely evacuate all affected individuals. Evacuation also endangers emergency personnel and individuals being evacuated by potentially exposing them to the chemicals in question.

### **Why an above-ground room?**

Unlike a tornado emergency, basements are not recommended shelter locations for chemical emergencies. Most chemicals are heavier than air and will seek low lying areas, like basements. So an above-ground room is the safest spot during a chemical emergency. If you do not have an above-ground room, a ground-level room will work fine. If possible, select a room on the side of the house opposite from the source of the chemical.

### **What about children at school?**

Clarksville-Montgomery County School System and Todd County School System have plans and procedures in place for students' safety and protection during emergencies.

only builds an expanded CAP team, but also helps the Clarksville CAP better understand what CAPs do, what the company makes, and how together, we can benefit the community. At the same time, the Hemlock, Michigan, CAP gets a better understanding of the company's growth and expansion."

The two CAPs met over dinner, and the Hemlock, Michigan, CAP also toured the Clarksville site to view construction progress. In addition, they experienced the Rivers & Spires Festival, and visited the new Austin Peay State University (APSU) Chemical Engineering Technology building.

According to John Shields, a visiting Hemlock, Michigan, CAP member, the entire visit was quite impressive. "The new construction is just fantastic and so are all of the people there, but I was particularly impressed with the University's training program," he said. "It includes a mini-production plant so that students – anyone with a High School diploma – can get excellent training. The people who do well enough to graduate are very prepared to succeed. This is all really great for the Clarksville community too, which is growing by leaps and bounds." ●

◀ *Hemlock, Michigan, CAP members tour Clarksville site*

### **How will I know it is safe to go outside?**

You will know it is safe to go outside by tuning into local and regional media outlets. They will advise any updates to the emergency situation and will give the all clear for the community.

### **Should I call 9-1-1 for information?**

Authorities request that you not call 9-1-1 unless you have a life safety concern or need immediate assistance. Non-emergency calls to 9-1-1 will tie up phone lines and dispatch personnel, preventing them from addressing true emergencies.

### **What media sources will have emergency information?**

Tune into your local media outlets, such as radio, television, and social media for additional emergency information.

### **What about emergency supplies?**

It is recommended that you have supplies assembled for all types of emergencies. Suggested items for chemical emergencies include: bottled water, towels and washcloths, plastic sheeting, duct tape, scissors (for cutting plastic), radio, flashlight, extra batteries and a first aid kit. ●

# Career Opportunities Continue

Hemlock Semiconductor, L.L.C., is excited to get up and running! The company will employ 500 people in 2012 when fully operational, and a great deal of hiring will take place in 2011. Vice president of human resources Kevin Burke noted, "We already have over 160 people on our operational staff. We will continue this hiring trend throughout 2011 and early 2012. Now is the time to apply for jobs at Hemlock Semiconductor."



*New production operators and their families enjoy a team dinner at the site.*

All available positions are listed on the website, [www.hscpoly.com](http://www.hscpoly.com). Production operator hiring is in full-swing and involves 30 weeks of intense training. The first seven waves of new hires are participating in a specialized training program where they rotate time between Clarksville and the Hemlock, Michigan, facility

teaches them the basics of polysilicon production. We also focus on skills such as teambuilding and learning about our company culture."

Roger Turnbaugh, who was in the first group of trainees, first heard about the construction of Hemlock Semiconductor, L.L.C., on the news in Clarksville.

"The training process here has been excellent and the opportunities for us are phenomenal," said Roger. "It is very thorough and they want us to succeed so we will be confident and safe in our positions. It can be tough being away from home at times, but looking at the big picture, the results will be great in the end. Having the Clarksville site completed and ready is definitely something to look forward to."

## Spotlights!

- **Watch our Feature Video:** Hemlock Semiconductor Corporation recently took a trip down memory lane and recorded the stories of three Michigan retirees. Watch them talk about growth and expansion at [www.youtube.com/dowcorningcorp](http://www.youtube.com/dowcorningcorp). It's an amazing story of teamwork, progress and sustainable success.
- **Check out our Career Website** at [www.hscpoly.com/careers](http://www.hscpoly.com/careers).

## Construction Update

Construction for Hemlock Semiconductor, L.L.C., located in Clarksville, Tennessee, is still going strong and according to plan for start-up in 2012. This \$1.2 billion facility is focused on manufacturing polycrystalline silicon, the cornerstone material for solar cells.

Here's what is happening:

- Over 70% of construction contracts have been awarded, with more than half going to regional firms.
- More than 1,600 people are now working on the construction site.



- At the end of the first quarter of 2011, construction was 40% complete.
- Underground piping systems are being installed at a rapid pace.
- Many large pieces of equipment have arrived, some by rail, and are now being prepared for installation.

### Clarksville Fast Facts on Construction

63,101 Cubic Yards of Concrete Poured  
14,532 Tons of Steel Installed  
55,141 Feet of Pipe Installed

- Construction of the Solar Center, the main administration building, continues and should be largely complete by early June.

# Swim Safety Tips\*

Summer is coming and so is a fun season of water sports. Let's play it smart and safe! Here are a few safety tips to keep in mind:

- Never take your eyes off children – even teenagers.
- Remove and store solar covers away from the pool when it is in use.
- Make sure there are no entrapment issues with drains.
- Make sure long hair or jewelry can't get tangled in drains or elsewhere.
- Prevent diving, a major cause for serious injury.
- Keep children, toys and equipment away from pools when not in use.
- Keep a locked gate at the entrance of an above-ground pool and a secondary gate for an in-ground pool – and follow the laws of your state.
- Keep rescue equipment available – a long handle with hook, a rescue throw ring.
- Don't perform in-water rescues unless you are trained.
- Wear sunscreen!

## Look for These Signs of Trouble:

- Swimmers holding their breath and treading water
- Unable to kick or move toward water rescue

\* Excerpts from United States Coast Guard, CDC and safekids.org.



- Head low in the water, mouth at water level
- Head tilted back with mouth open
- Eyes glassy and empty, closed, or unable to focus
- Hair over forehead or eyes
- Hyperventilating or gasping

- Trying to swim but not making headway
- Trying to roll over on the back
- Children who are quiet instead of noisy
- Blank stare when you ask if they are OK ... you have 30 seconds or less to help!

## Did you know?

- Fatal drowning is the second leading cause of accidental death for children under 15. Most are in the care of the parent, within 25 yards, and go missing within 5 minutes.
- Many people drowning are actually calm and show no signs of panic, while others do yell for help. ●

## Useful Emergency Links

- Montgomery County Emergency Management Agency homepage: [www.mcgtm.org/ema](http://www.mcgtm.org/ema)
- Community Emergency Response Team (CERT) program: [www.mcgtm.org/ema/cert](http://www.mcgtm.org/ema/cert)
- Red Cross of Clarksville-Montgomery County: [www.nashvilleredcross.org/general.asp?SN=8469&OP=8470&IDCapitulo=78t3z2wsk0](http://www.nashvilleredcross.org/general.asp?SN=8469&OP=8470&IDCapitulo=78t3z2wsk0)

## Greetings continued from front page

local response agencies, we will make our resources available for community needs too.

As we build safety systems to protect our employees and the community, we encourage each of you to proactively prevent emergencies in your home by learning how to respond and protect yourself, your family and your neighbors.

Our goal is to provide our neighbors with information that keeps all of us safe. In this issue of *Community Connection*, for example, you will learn about shelter-in-place and other safety tips. We will continue to keep you informed about prevention and response, including community siren systems that we are developing with Steve and his team to alert neighbors about chemical- or weather-related emergencies. ●

Stay safe,

*Michael J. Mauser*

Mike Mauser  
Loss Prevention Team Leader

## Community Connection

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