coverings
information that sticks

Si-COAT® a CSL Innovation
TECHNOLOGY THAT STICKS™

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Reach Regulation

REACH is a new European Community regulation on chemicals and their safe use. It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

The European Union (EU) regulation places greater onus on manufacturers, importers and distributors of substances to provide safety data and manage hazards associated with their products.

CSL SILICONES has used the services of Intertek Ageus Solutions to create a product assessment and strategic plan with regard to REACH responsibilities and the execution of REACH compliance. The assessment covers the Si-Coat 570 High Voltage Insulator coating as well as silicone sealants imported into the EU.

Intertek has completed pre-registration of the substances imported into the EU as CSL Silicone's only representative and therefore delayed the full registration deadline.

Full registration is required for substances on their own, in preparations or intestinally released from articles in quantities of 1 metric tonne or more per year per obligated entity. Generally, a registration dossier must contain two sections: a technical dossier and a Chemical Safety Report (CSR). For substances registered in the 1-10 tonne band, the CSR is not required. The exposure scenarios examined during testing will need to be annexed to the material safety data sheet.

Reach has outlined a specific test that must be completed for each tonnage band in annexes VI to X. Testing will need to be completed depending on the data gaps found during the Substance Information Exchange Forums (SIEF). Testing the effects of short-term and long-term exposure (depending on the tonnage and hazard classification) will be necessary.

The CSR is the documentation based on the Chemical Safety Assessment (CSA) that details results of relevant exposure scenarios.

Identification and compositional information must be submitted at a much more detailed level for full registration.

For more information on REACH regulation: http://ec.europa.eu/echa/

25 Years with John Barr

John Barr, VP of Engineering & Operations, celebrated a huge milestone in his career in September 2008 – 25 years of working at CSL Silicones Inc., mostly alongside Seraj Huda, late CEO of the company, to help bring CSL to where it is today.

Read below as he shares with us the beginnings of CSL as he and Seraj Huda worked on a

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25 Years with John Barr *(continued)...*

project in Kuwait which eventually led them to a silicone manufacturing plant in Canada that in turn led to the innovation that is Si-COAT technology.

When and how did you first join CSL?

The exact date was Sept. 6, 1983 – I had signed with Seraj then, but not as part of CSL. That would be later.

I originally met him 2 yrs before that, when I was working for a company called HG Engineering in Toronto. I just came off a contract as a site manager for a plant just outside of Ottawa. I finished that job then came back to the office in Don Mills, and Seraj was there. He'd hired the engineering company to do some initial work on the Kuwait project. After a couple months Seraj realized it was too costly to retain consultants, so he decided the best thing to do was to form his own company.

That's when Buna Engineers Ltd. was created. There was Mario Sassi, who started with me. A few months later we hired Marvin Greenberg in instrumentation, and after that, Marion, who was Romanian. That's when we rolled up our sleeves and worked on the Kuwait project.

Tell us a bit more about the Kuwait project.

Seraj, as you know, was always on the lookout for something original, something new, something different. Silicone had gotten his attention. He went to the big manufacturers of silicone and proposed the idea of building a plant out in the Middle East where there are all sorts of raw materials handy for production. The manufacturers had said, well yes, it's interesting, but will cost about $50M, which was too much.

He eventually found a company in Czechoslovakia (as it was called back then) that had their own silicone technology. The Czechs had had this technology for a while. In fact they still have some of the original patents on contact lens solutions, which is silicone-based.

So Seraj went to them, said he is very interested in taking their technology to another level, and this is why I'd like to build a plant in the Middle East, using your technology. Would you be interested in selling it to me? Based on the potential that involves, they thought it was a good idea. The company's contacts globally were severely limited at the time – due to the country being communist back then – so I guess they thought it was a good opportunity on both sides in order for them to gain more global exposure.

> *"Seraj... was always on the lookout for something original, something new, something different. Silicone had gotten his attention"*

The next stage was talking to the Kuwaitis themselves. Seraj did get someone interested based on the fact that he had the Czech technology, and he went from there. Seraj, despite the fact that he had no legal training, wrote up all the individual legal documents on his own, and was able to guarantee that no matter what happened, payment was still triggered by an irrevocable Letter of Credit.

The original plan was we would take the Czech's basic engineering and turn it into detailed engineering, order and get quotations and procure all the equipment based on the building that the Kuwaitis would be providing for the plant. We would provide full instructions on how to install all the equipment: all the drawings, instrumentation, and everything else.

The first time the Kuwaitis came up with a building to use, it left a bit to be desired. They'd gone to a designer that only ever did industrial malls before. Now we're talking several explosion-proof areas completely beyond their realm.

Anyway, we were plowing away, doing this detailed engineering, and I was trying to make sure everything we did was accurate and up-to-date. Seraj was working on his own timetable, which was, "I need this by this date!"

We had a few interesting discussions, and I kept saying it's not right yet, it's not right yet, and he would say, I don't care if it's not right, it's got to be there by so-and-so! And in retrospect he was right – he had milestones to accomplish and he did. I guess he knew for awhile they weren't going to look that closely at this stage in the game.

The project [was then] shelved with the Iran-Iraq war in the way and some of the equipment had been shipped out there already, some of it was sitting in storage in Europe, some of it was ready to ship. As I said one of the triggers for payment was procurement and delivery of the equipment so that's what we were concerned with. A very reputable company we hired was all set to deliver the equipment, and they had all the documentation in order so the shipment went very smoothly; the payment [was] triggered and Seraj [received] a big chunk of money.

What happened after the Kuwait project wrapped up?

[With] the project scuttled, Seraj had some money, we had the technology; what do we do from here?

We soon found out about a silicone sealant plant in Canada named CSL owned by two ex-Dow Corning executives. CSL had previously been bought by a company that was in the automotive industry and used

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25 Years with John Barr *(continued)...*

a lot of silicone. They must have thought it would be a good investment to buy a silicone company to have a good supply on hand for their own products. However, they obviously knew nothing about silicone, and very soon they realized they were losing money hand over fist. They put the plant on the market, and the Dow people made them an offer, but needed another person to buy into the plant. That's where Seraj came in.

There were disagreements between the three owners over the direction of the company, so Seraj offered to buy them out after six months. Soon a reactor room was built, and we continued making sealants against a lot of competition for sealant products with already established North American manufacturers.

Can you tell me about how the whole concept of coating technology got started?

We knew early on we had to diversify from strictly sealant manufacturing in order to remain competitive. So we started looking around at coatings.

The first real coating we made in any significant numbers was roof coating, CSL-326. We had a customer in the States who specialized in roof repair, especially in the southern states where there are a lot of flat roofs, a lot of heat loss and huge air-conditioning bills. They were trying to get a coating that not only reflected light but had a certain insulating property as well. We sold them our roof coating for quite a while.

In 1987, Seraj had met Ed Cherney, who was working at Ontario Hydro at the time, who mentioned there was a lot of success with RTV coatings, instead of using traditional means of protecting insulators like grease. He wanted to work with Seraj to further develop RTV coatings at CSL because he had an interest in it.

We eventually started manufacturing CSL-570 (now called Si-COAT HVIC) in the late 1980s, and had our first major breakthrough success with Ontario Hydro at their Hamilton Beach substation. In that particular part of Hamilton, there are heavily industrialized areas … industries such as Stelco, Dofasco and Columbian Carbon. As a result there was all this pollution coming off as smoke, and salt coming off the Skyway Bridge overhead. This would affect the performance of Ontario Hydro's insulators at the substation there, so much so they would get power outages, which created havoc for the steel companies reliant on the electricity. Eventually, Dofasco said that if there was one more major power outage that costs them their furnace operations, they would sue Ontario Hydro for millions.

As luck would have it we already approached that particular substation and supplied them with five or six pre-coated insulators and they were planning to do a trial against other different types of insulators to compare performance. When they got the threat from Dofasco, they thought, "Oh, what the heck, we've got the stuff here, let's just use it."

They put a bit on, and the coating is still working, 15 years later; the power outage problem disappeared almost overnight.

What do you hope will be accomplished and/or achieved in CSL's future?

The work that Faisal's put into some of these projects is bound to come to fruition soon. We've come so far, through the hardest part of just getting recognition for our Si-COAT technology.

We were up against a double-edged sword from the start. We're trying to sell to the electrical industry, which is probably the most conservative industry in the world, and within that conservative industry is the maintenance department, which by definition is equally conservative and generally unwilling to try a new product on the market when they've been using an established product for many years.

However once you've a customer who has tried [Si-COAT HVIC], they are so absolutely delighted with the product compared against any of the others on the market that there are instant word-of-mouth recommendations. It's a very tight-knit industry and once you're able to break that threshold, that "cadre" of people within the industry… well now it's pretty well-assured that we are recognized to have certainly the best insulator coating in the world.

What we're trying to do now is get together with insulator manufacturers and say, "Look, you make an already very good product, and with Si-COAT we can extend its service-free life." Eventually the main advantage of coating an insulator is that you can reduce the necessary creepage distance after improving surface electrical characteristics with Si-COAT.

The next stage of that development is, instead of a 10-ft insulator uncoated, you can replace it with a 7-ft insulator completely coated. There is less weight, less structural steel and handling, so there is an immediate advantage.

This is one of the reasons composite insulators were developed – to reduce the weight, reduce the strain of the towers, increase ease of installation. Instead of being glass or ceramic, they were silicone, so obviously much lighter to deal with, but they ended up causing a lot of problems. They were very erratic in performance – some would last [many] years, some would last only six months. Due to the fact they had a silicone exterior bonded onto a fiberglass core, the merging of the two were giving all sorts of mechanical and electrical problems.

Si-COAT coated insulators offer a good degree of the advantages found with lightweight composite insulators, but without the unreliable performance issues.

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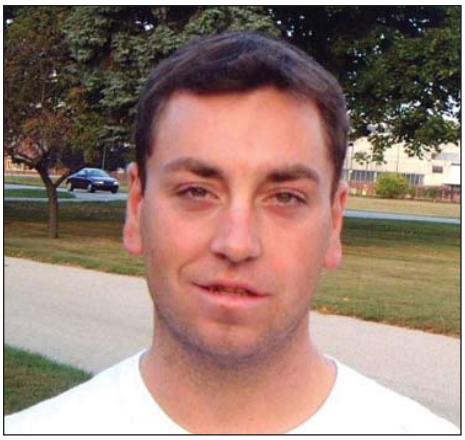
25 Years with John Barr *(continued)...*

Slowly more electrical utility companies are realizing this. It's a matter of showing insulator manufacturers that, in areas where insulators are used near the ocean, in salt-fog or heavily polluted areas, coated insulators stand up much better to those environmental conditions than uncoated ones. Uncoated insulators are prone to flashover problems when they remain in those conditions, but coated insulators take that problem out of the equation.

We're trying to get in at the beginning process of insulator manufacturing, where insulators are coated with Si-COAT before they leave the warehouse to be installed at substations. That way we also ensure that the insulators are coated the proper way right from the start to get the best performance out of Si-COAT HVIC.

2008 Suggestion of the Year Award



From the ninety-four suggestions given to the CSL committee in 2008, twelve received the Suggestion of the Month award. From these twelve, the Suggestion Committee had the difficult task of choosing one that stood out as Suggestion of the Year.

The winning idea was chosen based on the impact it made on CSL's safety policies. This idea was submitted by an employee who took a practice that is already in place to warn employees of the use of a controlled substance, and made it better and impossible to miss.

Bill Dawson suggested adding red flashing lights outside both of the production rooms to indicate when the controlled substance is being used. When the lights are on, no one is allowed to enter the room without the proper training and safety equipment.

Prior to this, there was a sign placed on the door to warn people not to enter.

Here's to Bill Dawson! Great work and congratulations again on your winning suggestion for 2008.

CSL Christmas Party – December 6, 2008

In spite of the inclement weather, CSL's annual Christmas party, held at Cutten Club in Guelph, was very well attended.

After being welcomed by the Social Committee Chair the guests were addressed by the President. An appetizing dinner was served, followed by the Suggestion of the Year award which was presented to Bill Dawson. During dessert, a timed game of REBUS - example: CAJUSTSE is Just in Case - was played. Everyone shared the winning prize since no one completed the game in the allotted time.

Various Christmas gifts were presented to some employees at random, and the raffle for the main prize, a GPS, was drawn. The lucky recipient was Dan Loder.

Finally guests were invited to the dance floor and kept it alight until way past midnight.

From left to right: Cheryl Cox, Rosalind Scantlebury, Ksenia McConnery, Mina Mistry, Vesna Svenda, Basel Diogenis, and Bonnie Cummings.

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