



Cook Legacy May eNews

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Featured In This Issue:

Collaborative Innovation

We heard a great talk the other day by innovation consultant and journalist Charles Leadbeater. He spoke about the invention of the mountain bike. It seems instead of being dreamt up in an R&D lab, the bike was originally created by bike riders. Fed up with the limitations of traditional road bicycles, the riders took gears from racing bikes, brakes from motorcycles, and other parts to built new bikes for off-road riding. It would take 10 or 15 years before the big companies cashed in on the innovation.

But why are we talking about this?

We've talked a lot in the last few issues of Cook Legacy eNews about different methods of innovation. We take innovation pretty seriously because it's at the heart of who we are as a company. Cook Legacy's general approach is to frame a problem as a series of questions. Then we systematically answer those questions. The big assumption here is that there is an answer. The story about the mountain bike reminded us that the answer isn't always in a reference book or an R&D department.

It's tempting to think of yourselves as the lone expert because we design and build the equipment that we do. But in real life, our innovations live and breathe in power plants, water plants, and energy plants around the world. The operators at those facilities also have expertise with our equipment, and failing to recognize that expertise is foolish. For consulting projects, the same kind of thinking can sneak in when we don't seek input and counsel. Every client is the world's leading expert on the problem they're trying to solve. Someone somewhere knows the answer — whether that someone is an engineer, a sales rep, or a fisherman.

Our development of the Cook Legacy AirBurst System employed a typical cooperative approach. We conferred with customers to find out which AirBurst components they would need. As customers gave feedback on our early systems, we developed solutions to their issues. The comments impacted valve placement and overall system arrangement. It also resulted in the development of the HMI/Ethernet-based remote training and start-up that we perform on most jobs. This culminated in a recent system that we sent to Iraq. Our typical HMI operates with English text, which the Iraqi operators couldn't read. We weren't fluent in Arabic. The desire and need for a graphics-based interface determined the design of the system. We programmed simple graphics to navigate through the user-interface. If the operator presses a picture of an air compressor, it takes the operator to the air compressor control screen. If the operator presses a picture of a valve, it takes the operator to the valve control screen. The final HMI is shown below.



In another instance, a major energy project was saved by YouTube. We Googled the proposed site name and found video footage of some snowmobilers riding around massive debris at the site. This debris mobilization was not a part of the design basis we were given but "made for an awesome ride." Obviously, we adjusted our structural design accordingly.

For an LNG terminal project, we were concerned as always about affecting fish populations. There was a major sampling effort proposed, but first we made a phone call to a local fishing company. They had charts and maps showing what fish lived where and at what depths. The complete sampling eventually took place but at a fraction of the initial cost because some fishermen helped us aim.

Cook Legacy is committed to innovation — it's what drives us. So, please [let us know](#) if you have any ideas. As always, if you have a problem we can help with, [contact us](#).

Thank you,
[Randy Surface](#), Communications Director

Featured Product: Fish Screens

Cook Legacy has long focused on environmentally friendly solutions for green power, fish diversion, and water intakes. One area where we're currently focusing is on flat panel fish screens. Recent regulatory changes have increased demand for the special fish friendly screens. Cook Legacy has again partnered with Norris Screen of Tazewell, VA to build flat screens for applications where fish safety is of utmost concern. The screens are constructed of a special TIG-welded wedge wire called TIGWALL™. TIGWALL™ is welded in the flat to maintain structural integrity.



If you have fish protection or diversion needs, please [contact Cook Legacy](#).

Case Study: Barbados

Cook Legacy worked as a sub-consultant for a major international engineering firm on a recent project. This firm needed a water supply for a private resort on the island of Barbados. Some of this water would be used for process applications like fire protection and the rest for a chiller (water-cooled air conditioner). After all, the people who pay “private resort in Barbados” money don’t want to lose their air conditioning! The system had to be effective, operable by a few untrained staff, and durable. Additionally, it couldn’t kill aquatic life.

Our work product in this case was not any specific technology, but rather a basic design and feasibility study for various options. To this end we delivered:

- Capital and operating cost of a full host of options — from a flat panel with a guy raking it off to a fully automated system.
- An organized menu of screening options with features and benefits, expressed in CAPX and OPX terms.
- PID and specifications for the optimized plant.

Cook Legacy was able to deliver an intake concept at 50% of the initial estimated cost.

If you have any questions about Cook Legacy consulting on your project, please [contact Cook Legacy](#).
