

## OUR VISION:

Turning Visions into Reality through:

- People
- Adding Value
- Alliances
- Performance

## OUR VALUES:

Building Relationships through:

- Dependability
- Integrity
- Trust
- Quality
- Family

## OUR MISSION:

Providers of Premier Services

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# CURRENT connections

Fall 2006

## MAXIMIZE YOUR ELECTRICAL INVESTMENT Lighting Technology Solutions

by *Travis Blankespoor*

Would you believe that new applications for an old product could save you thousands of dollars on electric utility bills? Fluorescent lighting is staging a comeback, and advances in its technology could make fluorescents a viable, cost-saving option for your facility.

Before now, high-bay lighting (mounted 25 feet or higher from the floor) has most often been achieved using HID fixtures - such as high-pressure sodium or metal halide. But today, Lithonia, Columbia Lighting, Cooper Lighting, and other fixture manufacturers are beginning to offer a high-bay fluorescent fixture. Its benefits include better efficiency and color distinction, less shadow and glare, consistent light output, instant on, instant re-strike, and a more uniform lighting pattern. Possible disadvantages to the high-bay fluorescent option may be a limited selection of fixtures, multiple lamps which could increase maintenance, and shorter lamp life. Also, for retrofits, a one-to-one replacement that will yield same light levels may not be available.

So, with that information in hand, will fluorescent fixtures' benefits initiate a change in your facility? This will depend on your application of this technology. Some of the best uses for fluorescents may be in places where you already have high-bay HID fixtures or if you are planning the lighting scheme of a new project.

In installation and initial cost, fluorescent fixtures are comparable to their HID counterparts, and the same mounting procedures used for HID fixtures can be used with fluorescent fixtures. However, the applications are not created equal. The electrical load presented by fluorescent fixtures is significantly less than that of HID fixtures. This means the installer can use smaller panels for lighting and have more fixtures on a single circuit. Also, fewer conduits will go back to the panel and less wire will be

needed. In addition, since fluorescent fixtures maintain their light output better, they will continue to look good over a longer period of time.

Many whitepapers have been written about the subject and go into detail about the benefits and drawbacks of using fluorescent fixtures instead of HID for high-bay applications. One well-written paper on the subject can be found at <http://www.aboutlightingcontrols.org/education/papers/high-low-bay.shtml>. It reports on facilities that have retrofitted their lighting system - which included HID fixtures - to fluorescent fixtures. Most of the facilities profiled are controlled, non-hazardous environments (such as warehouses).

As always, deciding whether or not to make the switch usually comes down to the dollar figure. The owner will experience some significant cost savings from using a more efficient, fluorescent fixture. In a lighting retrofit, a payback could be realized in only two years - a significantly short timeframe. Also, several utility companies now offer rebate and incentive programs for facilities using efficient fluorescent fixtures.

At Interstates, we understand that each lighting application is unique. Let us help you find the best solution for your application. Our knowledge and experience can help you better understand your application options, and together we can complete the best design for you.



Travis  
Blankespoor

For more information on lighting technology solutions, contact Travis Blankespoor at 712-722-1664 x144.

# FUELING THE DEMAND

## Interstates Playing Key Role in High-Capacity, High-Profile California Ethanol Plant Production

In 2005, Congress passed a new energy bill that mandates an increase in refiner's ethanol use to 7.5 billion gallons by year 2012. As a result, the demand for high-capacity, state-of-the-art ethanol plants is on the rise.

Interstates' proven background in the intricacies of ethanol plant design, construction, and operation made them a natural choice for Delta-T, the company developing a 40-million gallon capacity facility for Pacific Ethanol in Madera, California. W.M. Lyles is the general contractor for the project, which is scheduled to go online this October.

"This is a very high-profile project," notes Jaron Vande Hoef, Interstates Project Engineer. "In fact, Gov. Schwarzenegger came to the site for a major policy address to announce California's Bioenergy Action Plan. There's also been a lot of scrutiny. In fact, we've taken a lot of extra care to work with local and state authorities on regulatory issues."

The plant, which is the first of its kind in California, is located on a 137-acre site ten miles north of Fresno.



Pacific Ethanol in Madera, California

In addition to providing electrical design, Interstates has been very involved in updating the grain receiving, processing, and storage facility, which had been idle for five years. Interstates' integrated capabilities were called on to provide engineering, control systems and construction for the receiving rehab. "The general contractor has called us, 'the glue that's holding the project together,'" Vande Hoef says. "We're just pleased to be here."

## DISTANCE, LANGUAGE ARE NO BARRIER FOR PREMIER SERVICES

### Interstates Goes Global Again with Romanian Feed Mill Project

Providing documentation and meeting local code compliance is a challenge on any electrical engineering project.

But, what if everything has to be in Romanian?

That's the challenge that faces Interstates Engineering on a feed mill project in Padureni, Romania. According to Randy Stander, Senior Project Leader, it really hasn't been much of a problem.

"Distance and language hasn't really been an issue," Stander says. "We're working closely with a Romanian electrical engineering company, EETim. EETim knows the European construction methods and local codes and has proven to be a good fit with the Interstates team. We're making periodic trips to Romania to oversee the construc-

tion work. So far, there haven't been any problems."

Interstates is working on the project with Ibberson International, Inc., Minneapolis, on behalf of Noul Comtim, the Romanian company that owns the plant. There are two phases to the project. The first is already underway. It involves construction of the grains area of the plant, which will receive and dry the grain. The second phase includes the concrete slipped feed mill itself.

"We're definitely interested in international business," Stander says. "It brings a whole new aspect to the work – and a lot of exciting new challenges."

## EMPLOYEE UPDATE

Jaron Vande Hoef and Shane Vander Kooi have recently been promoted to Team Leader positions at Interstates Engineering.

As Team Leads, Vande Hoef and Vander Kooi will have responsibility for guiding the work of engineers, designers, and drafters, and mentoring their professional development. In addition, they are charged with developing areas of specialty to manage other aspects of Interstates operations. Vande Hoef, for example, has responsibility for key aspects of Human Resources, such as training and recruitment.

"Unlike many companies, which are organized by department, we're organized into multi-task teams that are client or market-focused," Vande Hoef explains. "So, each team may be focused on the work of two or three key clients. This makes us more accountable and accessible, and we can respond more flexibly to the needs of the clients we're working with."

Vande Hoef has been with Interstates for more than four years. A Northwest Iowa native, he is a 2002 graduate of Dordt College in Sioux Center, and makes his home in Sioux Center with his wife and two daughters.

Vander Kooi joined Interstates in November, 2005 after working for Link Manufacturing in Sioux Center. He also attended Dordt College and graduated with a B.S. degree in engineering. Vander Kooi also lives in Sioux Center with his wife, Kristy, three daughters, and a son.



Jaron Vande Hoef



Shane Vander Kooi

# LEADING THE WAY

## Charlie Baumgartner: Travel Warrior

Charlie Baumgartner has come across a lot of change in the 24 years since he started with the Interstates Companies. The company has grown, and his career has grown with it. He's traveled all over the country, gained a lifetime of

experience, and has earned many admiring fans in the industry. As a true Interstates' "Travel Warrior" - going from jobsite to jobsite of various ethanol plants, feedmills, and other food and beverage processing facilities - it's no wonder that his hard work and leadership influence spans throughout this country.

Charlie's aspirations of working in the field of electrical contracting started in the area where he was raised: Rapid City, South Dakota. Charlie knew from a young age that he wanted to build his career in the field of electrical construction. He developed his skills early by wiring houses with his dad and his dad's business partner. Charlie recognized the challenges of working with family and believed there was more out there for him than working in residential facilities. So, in 1982 after graduating from the Electrical Construction and Maintenance program of Mitchell Technical Institute in Mitchell, South Dakota, he turned to Interstates and has forged forward from that point.

And now, after almost a quarter of a century of working in the field, Charlie has an abundance of experience in this industry

and he continues to enjoy most aspects of his job. Working with great people, being able to build things, and not being second-guessed when making decisions are a few of the reasons he enjoys what he does for Interstates. Indeed, a great project for Charlie is when optimal design, people, and weather come together and "when a client knows what they want." Not all projects are created equal, however. His one piece of advice: "Don't start a project in North Dakota in January."

Currently, Charlie is working on an ethanol plant in Hereford, Texas. When that project is complete, he'll face one of his *least* favorite tasks: packing up at the end of each project. But although the regular packing up and moving on process can be tiresome, Charlie does appreciate all of the opportunities that frequent traveling provides. "I have always enjoyed being a tourist in many different parts of the country. I can meet people from most anywhere and I know something about the area," Charlie says.

In his free time, Charlie enjoys watching television, reading, shooting sports, having a drink with friends, and adding pieces to his model railroad. Also, one can imagine he spends quite a bit of time keeping in touch with his family: Charlie has 13 brothers and 3 sisters, along with 44 nieces and nephews... "which is enough," he says. Charlie predicts that he'll be working in the field until retirement, and then this well-traveled individual wants to reside in either Rapid City near his family or somewhere on the beaches of Mexico.

Working for Interstates, Charlie has enjoyed the rapid advancement opportunities and has taken advantage of the chance to cross-train in instrumentation. "At Interstates, people can take on the responsibility that they want," he states. Charlie sees Interstates moving in the direc-



**Charlie Baumgartner**

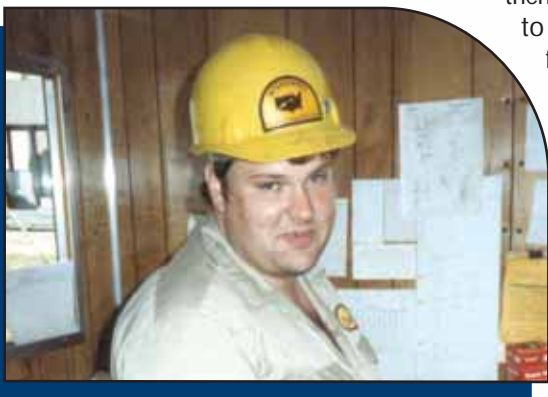


**Charlie participating in training**

tion of full turnkey construction management with a project management division. The added responsibility he accepts is vital preparation for the changing needs of the electrical construction industry.

Charlie's hard work has earned him respect in the industry and from his supervisors. Doug Schrader, a project manager for Interstates, says, "Charlie is passionate about quality, and his real-world experience and close attention to detail allows him to spot potential problems and solve them *before* they become problems. He has set the bar for technical knowledge at Interstates Construction." IC's operations manager, Dave Los, considers Charlie to be "one of the 'best of the best,'" and "an awesome and critical part of the Interstates team."

The work Charlie is doing today is laying the foundation for the success of Interstates as he serves an example to those who aspire to be great field leaders. He sums up his career path as: "I started as an apprentice who knew everything and became a superintendent who asks a lot of questions." And so, Charlie has some advice for those who feel they are up to the challenge: "Great field leaders have to know what they are talking about. Ask questions, listen, plan, and do what you say you are going to do." Sage advice from an Interstates' field leader who continues to set high standards for field personnel through his extraordinary leadership.



# PLANNING FOR A SEAMLESS STARTUP

## An Early Start and Integrated Services Help Interstates Clients Get Off to a Fast Start

What's the secret to an exceptional startup?

According to Interstates Construction Services President Dave Crumrine, it's having a truly integrated plan right from the start.

"A plant startup is a complex process, with lots of players involved," Crumrine says. "To be truly effective, you need a vast amount of coordination. Everyone tends to focus on their own area of responsibility, and if everyone starts doing their own thing, that's when it has the potential to go south. We encourage our clients to develop a comprehensive plan very early in the process. Because we offer integrated engineering, construction, instrumentation, and control systems services, we're uniquely positioned to help clients develop on-target planning."

The value of Interstates' approach was proven recently in a project for a West Coast manufacturer, when Interstates' insistence on using a coordinated master plan enabled the plant to begin operations weeks ahead of schedule.

"It was vital that we begin planning early. On this project, the team led by Integrated Project Manager Jerry Steenhoek, started planning in June for a December start up," says Jeff Miller, Director of Project Management. "First, it was just the Interstates Companies' team getting together, making sure we had our ducks in a row. Then, we brought in our client and the General Contractor and

presented a startup schedule that showed how we would make things work."

Because so much of our work is done late in the project, the startup schedule that Interstates developed was comprehensive and detailed, right down to indicating when vendors should be contacted, so they could arrive on-site at the right time. Interstates' integrated capabilities were essential in developing such a complex and detailed plan. Key Interstates players in this planning effort were Jerry Steenhoek, integrated project manager, Scott Koll, construction project manager, and Charlie Baumgartner, site superintendent.

Naturally, the key to success in implementing a plan often comes down to sticking with it, even when other players have different inclinations.

"As we neared the end of the plan, some of the other trades started to push to jump ahead and perform certain functions," Miller says. "After all, that's the way they're used to working – it's a natural instinct. But, you can't go ahead and start some motors when the control systems that will run them aren't in place. At Interstates, we believe in developing a great plan and following it. That's how the project was actually able to be realized ahead of schedule...everything was ready to go before we started, and by sticking to the plan, it all came together seamlessly."

Miller points to three key reasons the startup went literally "by the plan:"

- Interstates built trust early in the project by developing a fully comprehensive schedule and following it effectively from the beginning.
- Interstates took charge of the schedule. "It took some selling on our part," Miller concedes. "That's why establishing trust was so important. Then, the results spoke for themselves."
- Interstates made sure that all major vendors were included in the process.

Crumrine is convinced that early, integrated planning is the key to a high-performance, low-stress startup in any kind of project.

"I like the analogy someone offered to me once," Crumrine says. "They observed that we're building a manufacturing plant that is incredibly more complicated than an automobile. But no one would ever think of assembling an automobile without a detailed plan. Because Interstates has uniquely integrated capabilities, we're uniquely qualified to develop a plan that makes the whole startup successful. We would love to help!"

*Let Interstates show you how their approach to planning can make your next startup seamless. Call the Interstates Companies today at 800-827-1662 X153 for more information.*

Visit our web site.  
[www.interstates.com](http://www.interstates.com)



PROUD TO BE MEMBERS OF



# TAKE CONTROL OF DATA WITH I-CONTROL 4.0

## Latest Version Offers Functions and Ease of Use

The latest version of I-Control, Interstates' revolutionary manufacturing execution system, is now available with new features that make it even more powerful and user-friendly.

I-Control is designed to tie real-time feed or flour mill operations to data systems, giving operators and managers more precise information for decision-making. Version 4.0's advanced web reporting capabilities makes viewing reports as easy as opening Internet Explorer and navigating to a web site.

I-Control 4.0 features:

- A Wizard-based system setup that makes installation a breeze, with uniform setup on all systems
- Advanced order/scheduling interface for efficient, just-in-time production
- A new Hand-Add Weigh application that can print and scan barcodes to provide

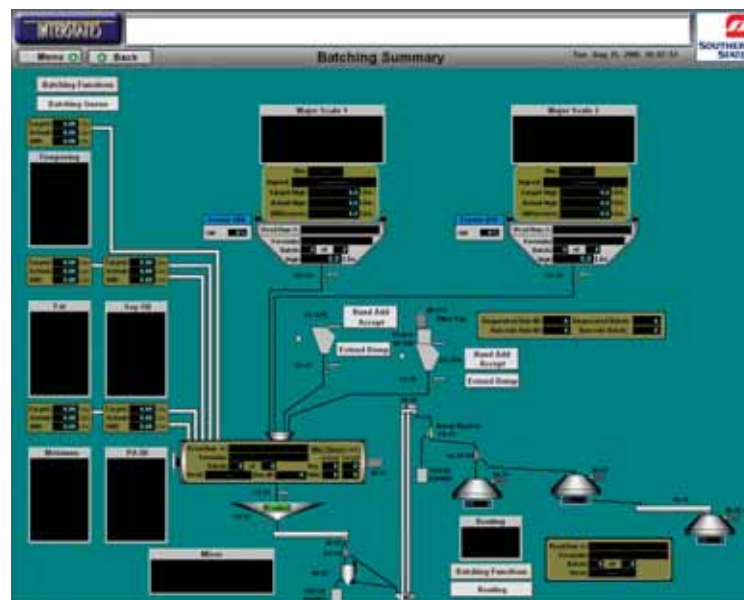
improved drug tracking. When drugs or other additives must be added in precise amounts, I-Control 4.0 can print barcodes that specify amounts for specific batches and validate the additions per batch on completion.

"While I-Control was originally designed for feed mill operations, we can see other industries that will benefit from adopting it," says Jon Wheeler, Support Services Department Lead for Interstates Control Systems. "There are

a lot of industries, such as pet food and cereal manufacturers, that use the same aspects of grain processing – batching, pelleting, grinding, extruding, and bagging. We're confident they would find I-Control to be a powerful and useful tool."



*To find out more about I-Control and how it could improve data reporting in your operation, call Jon Wheeler at 712-722-1663 x173.*



**Corporate Offices**  
**Interstates Construction Services, Inc.**  
PO Box 260 • 1520 North Main Ave.  
Sioux Center, Iowa 51250  
712-722-1662 • Fax: 712-722-1667  
e-mail: bdev@interstates.com

**Interstates Engineering, Inc.**  
P.O. Box 260 • 1520 North Main Ave.  
Sioux Center, Iowa 51250  
712-722-1664 • Fax: 712-722-1667  
e-mail: eng@interstates.com

**Interstates Control Systems, Inc.**  
P.O. Box 260 • 444 12th Street NE  
Sioux Center, Iowa 51250  
712-722-1663 • Fax: 712-722-1693  
e-mail: icsi@interstates.com

**Interstates Instrumentation**  
P.O. Box 260 • 444 12th Street NE  
Sioux Center, Iowa 51250  
712-722-1665 • Fax: 712-722-1693  
e-mail: instrumentation@interstates.com

**Omaha Regional Office**  
**Interstates Construction Services, Inc.**  
14015 Industrial Road  
Omaha, Nebraska 68144-3319  
402-934-2133 • Fax: 402-934-2138  
e-mail: oro@interstates.com

**Nashville Regional Office**  
**Interstates Construction Services, Inc.**  
225 Shakespeare Avenue  
Madison, Tennessee 37115  
615-870-5744 • FAX: 615-870-5743  
e-mail: nro@interstates.com

**Rocky Mountain Regional Office**  
**Interstates Construction Services, Inc.**  
2636 Midpoint Drive, Suite C  
Fort Collins, Colorado 80525  
970-221-1776 • FAX: 970-221-3652  
e-mail: rmro@interstates.com



Pacific Ethanol in Madera, California

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Sioux Center, IA 51250 • USA

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